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THE RIPPLE EFFECT OF SEVENTH AMENDMENT DECISIONS ON THE DEVELOPMENT OF SUBSTANTIVE PATENT LAW

Eileen M. Herlihy†

Abstract

In determining whether a judge or jury should decide particular issues in patent cases, the Federal Circuit has placed too much emphasis on reaching outcomes perceived to be beneficial from a policy perspective and too little emphasis on performing analyses that are consistent with Supreme Court Seventh Amendment precedent. The irony is that, in the course of reaching Seventh Amendment outcomes perceived to foster certainty and uniformity, the Federal Circuit has engaged in expedient and unprincipled analyses that have themselves spawned widespread problems in substantive patent law.

This article examines the ripple effect of statements and intermediate conclusions set forth in the course of flawed Seventh Amendment analyses in the Federal Circuit's decisions in Markman and Hilton Davis. In relying principally on a fact versus law approach to Seventh Amendment issues in patent cases, an approach not employed by the Supreme Court in addressing such issues, the Federal Circuit has generated faulty and inadequately supported statements and intermediate conclusions that have adversely affected substantive law. Compounding the problem, the Supreme Court has shown excessive deference to the Federal Circuit in this area.

This article addresses the impact of the Federal Circuit's faulty Seventh Amendment analyses on the substantive law in three areas related to claim scope: claim construction, the doctrine of equivalents and prosecution history estoppel. In each of these areas, statements and intermediate conclusions contained in the flawed Seventh

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Amendment analyses have created confusion, tension and conflict in the substantive law. The adverse impact has affected a host of issues ranging from the proper role of one of ordinary skill in the art, to the tension between claim scope under the doctrine of equivalents and claim construction. As a result, there is a pressing need to correct the Federal Circuit's faulty statements and intermediate conclusions, which have been consistently applied and reapplied in cases, and revisit the Seventh Amendment issue in Hilton Davis which was left undecided by the Supreme Court.

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INTRODUCTION

Most people would agree that the best way to treat a sick patient is to diagnose the underlying cause of the illness and treat the root cause rather than the symptoms. This approach to treating patients is generally applicable to solving problems. It is usually more effective to identify and address the root causes of a problem than to deal individually with all of the ramifications of the problem. Of course, the key to success under this approach is the accuracy of the diagnosis.

In patent law, there are a number of problem areas that have raised serious concern in recent years. Those involved in science, industry and business have sounded an alarm over the failures of the patent system to provide a realistic incentive for innovation.¹ There is a growing concern that the balance between providing an incentive for innovation through patent protection, on the one hand, and the need to give the public fair notice of patent coverage in order to allow individuals and businesses to make reliable decisions, on the other hand, is out of kilter.² Since 2005 there have been repeated attempts in Congress to pass patent reform legislation without success.³ Prominent critics warn that the patent system is broken.⁴

In particular, the law related to the scope of patent coverage,

1. See, e.g., Pauline Newman, *The Federal Circuit - A Reminiscence*, 14 Geo. Mason L. Rev. 513 (1992) (Judge Newman of the United States Court of Appeals for the Federal Circuit describes activity related to a past Domestic Policy Review of Industrial Innovation and the eventual creation of the Court of Appeals for the Federal Circuit.); Donald W. Banner, *Witness At The Creation*, 14 Geo. Mason L. Rev. 557 (1992) (Banner, a past Chairman of the Intergovernmental Task Force on Patents and Information, describes his testimony during congressional hearings to address a perceived slow down in technological innovation and to stimulate investments in industry by strengthening the patent system.); ADVISORY COMM. ON INDUS. INNOVATION, REPORT ON PATENT POLICY 147-99 (U.S. Dep't of Commerce February 6, 1979).

2. See, e.g., JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* (Princeton Univ. Press 2008).

3. Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005); Patent Reform Act of 2006, S. 3818, 109th Cong. (2006); Patent Reform Act of 2007, H.R. 1908, 110th Cong. (2007) (as amended by House, Sept. 4, 2007); Patent Reform Act of 2007, S. 1145, 110th Cong. (2007) (as amended by Senate, Jan. 24, 2008); Patent Reform Act of 2008, S. 3600, 110th Cong. (2008); Patent Reform Act of 2009, H.R. 1260, 111th Cong. (2009); Patent Reform Act of 2009, S. 515, 111th Cong. (2009) (as amended on Apr. 2, 2009, by S. Comm. on the Judiciary). See also Harold C. Wegner, *Judicial Patent Reform in the 111th Congress: New Solutions for Known Problems*, 3, 16-24 (2009), <http://www.ipfrontline.com/downloads/AkronConferenceWegnerPaper.pdf>.

4. JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* (Princeton Univ. Press 2008).

including claim construction, the doctrine of equivalents, and prosecution history estoppel, is considered to be in dire straits. Patent claims generally define patent rights⁵ and the law regarding the proper interpretation of patent claims has been frequently criticized as being, at best, confusing and, at worst, contradictory.⁶ The reversal rates for trial court claim construction decisions are high,⁷ and this is considered by many to reflect a lack of clarity in the law of claim construction.⁸ Moreover, the doctrine of equivalents, a legal theory under which the scope of patent coverage may encompass more than the literal breadth of patent claims as far as the right to exclude is concerned,⁹ has been attacked as lacking a cohesive foundation.¹⁰ The very existence of the doctrine of equivalents has been challenged before the United States Supreme Court¹¹ and despite being upheld¹²

5. 35 U.S.C. § 112 (2006); Giles S. Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499 (1990).

6. Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 Lewis & Clark L. Rev. 231 (2005).

7. See *id.* at 233 (The Federal Circuit reversed the district courts' claim construction in 34.5 percent of the cases from 1996 through 2003.); see also Andrew T. Zidel, Comment, *Patent Claim Construction in the Trial Courts: A Study Showing the Need for Clear Guidance from the Federal Circuit*, 33 SETON HALL L. REV. 711, 745-46 (2003) (reporting a 41.5 percent reversal rate in 2001); Christian A. Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1104 (2001) ("[T]he Federal Circuit reversed 29.6% of cases involving an express review of claim construction.").

8. See William H. Burgess, Comment, *Simplicity at the Cost of Clarity: Appellate Review of Claim Construction and the Failed Promise of Cybor*, 153 U. PA. L. REV. 763, 763-64 (2004); Moore, *supra* note 6, at 231 & n.2.

9. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997) ("Under this doctrine [the doctrine of equivalents], a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention.").

10. Michael J. Meurer & Craig Allen Nard, *Invention, Refinement and Patent Claim Scope: A New Perspective on the Doctrine of Equivalents*, 93 GEO. L.J. 1947, 1948-49 (2005) (footnotes omitted) ("Despite nearly two hundred years of development, patent law lacks a coherent vision of a doctrine that holds great intuitive appeal. Debate about the proper contours of the DOE is formal and unsatisfying because the doctrine lacks a strong normative foundation.").

11. *Warner-Jenkinson* 520 U.S. at 26-27 & n.4.

12. *Id.* at 25. The United States Supreme Court unanimously rejected the "primary argument" of the petitioners that the doctrine of equivalents should be abolished as inconsistent with a number of revisions that were made to the patent statutes in the 1952 Patent Act. The Supreme Court upheld the continuing viability of the doctrine of equivalents in the face of this challenge. *Id.* at 25-26. The Supreme Court also rejected an argument that the doctrine of equivalents should be abandoned on the basis that it was only applicable under so-called "central claiming," a type of patent claims practice that claimed the "core principles" of an invention and that has been replaced by "peripheral claiming" which describes the "outer

is still questioned by some critics who would like to abolish it in its current form¹³ or limit its reach.¹⁴ Prosecution history estoppel, a doctrine that limits the application of the doctrine of equivalents,¹⁵ has been in a state of flux,¹⁶ creating uncertainty in its application.¹⁷

boundaries" of an invention. *Id.* at 27 n.4.

13. Joshua D. Samoff, *Abolishing the Doctrine of Equivalents and Claiming the Future After Festo*, 19 BERKELEY TECH. L. J. 1157 (2004).

14. See, e.g., John R. Thomas, *Claim Re-Construction: The Doctrine of Equivalents In the Post-Markman Era*, 87 J. PAT. & TRADEMARK OFF. SOC'Y 781, 783, 799-804 (2005) (Thomas proposes, among other things, that judges be allowed to amend claims as a matter of equity during patent infringement litigation and that equivalent infringers enjoy "intervening rights commensurate with the reissue statute"); Matthew C. Phillips, *Taking A Step Beyond Maxwell To Tame the Doctrine of Equivalents*, 11 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 155, 168-86 (2000) (Phillips proposes that the doctrine of equivalents should be limited to equivalents that arise after the filing of the original patent application, i.e. so-called "after-arising technology," and should not include disclosed but unclaimed equivalents that are not captured in a reissue proceeding); Scott P. Zimmerman, *The Doctrine of Equivalents: A Call For Congressional Reinvigoration*, 40 IDEA 599 (2000) (Zimmerman proposes that Congress should enact legislation setting obviousness as the test for the doctrine of equivalents); James K. Folker, *A Legislative Proposal To Clarify and Simplify Patent Infringement Analysis Under the Doctrine of Equivalents*, 6 FED. CIR. B.J. 211, 213 (1996) (Folker proposes legislation that would both "limit application of the doctrine of equivalents to those equivalents, on an element-by-element basis, which one of ordinary skill in the art would have known to be interchangeable at the time of the alleged infringement" and "expand the period of availability for Continuation-in-Part Applications such that they are available during the entire term of the patent.").

15. See, e.g., *Pharmacia & Upjohn Co. v. Mylan Pharms., Inc.*, 170 F.3d 1373, 1376 (Fed. Cir. 1999) ("Prosecution history estoppel precludes a patentee from obtaining under the doctrine of equivalents coverage of subject matter that has been relinquished during the prosecution of its patent application.").

16. The relatively recent litigation in the *Festo* case, involving a prosecution history estoppel issue, was ongoing for over nineteen years and resulted in numerous opinions. The most noteworthy of these opinions were an en banc decision of the Federal Circuit in 2000, a decision of the Supreme Court in 2002, vacating the prior Federal Circuit decision, and a subsequent en banc decision of the Federal Circuit in 2003. See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc), *vacated* 535 U.S. 722 (2002); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359 (Fed. Cir. 2003) (en banc). Each of these three decisions announced new law in the area of prosecution history estoppel, as discussed in Section III of this article.

17. In a concurring opinion in the Federal Circuit's 2003 en banc decision in *Festo*, Judge Rader commented on the uncertainty created by the rapid changes in the law related to the doctrine of prosecution history estoppel. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1375-76 (Fed. Cir. 2003) (en banc); see also John M. Benassi & Jessica R. Wolf, *Claim Construction and Proving Infringement: The Impact of Phillips, Festo and Their Progeny*, 948 P.L.I. 135, 142 (2008) (Pursuant to the Supreme Court's decision in *Festo*, under the doctrine of prosecution history estoppel, while there is a presumption that a narrowing amendment made for reasons substantially related to patentability will surrender equivalents of the amended claim element, this presumption may be rebutted. The Supreme Court has suggested "a potential test outlining effective rebuttal evidence." However, the authors point out that "this test raises many new questions that litigators have been and will be grappling with for years to come."); Erin Conway, Note, *The Aftermath of Festo v. SMC: Is There "Some Other*

In addressing some of these problem areas in patent law, commentators have raised a variety of global criticisms in attempts to identify the root causes of some of these problems. There are those who believe that the patent system is fatally flawed in that it generally does not give appropriate economic incentives to achieve the objectives of the constitutional mandate to “promote the Progress of . . . useful Arts.”¹⁸ Some critics believe that patent law needs to be more subject matter specific regarding different areas of technology in order to function effectively.¹⁹ At least one critic believes that a number of problem areas in patent law doctrine have arisen because of flawed conventional wisdom that patents are grounded in an exclusionary theory of property rights.²⁰ Still others believe that more weight needs to be put on certainty and the public notice aspects of patent law in order to remedy many of the problem areas.²¹

This article presents the novel thesis that at least one important root cause of a number of problems in patent law today lies in the flawed analyses in a small number of relatively recent Seventh Amendment²² patent cases. In determining whether a judge or jury should decide particular issues in these cases, the Federal Circuit²³ has placed too much emphasis on reaching outcomes perceived to be beneficial from a policy perspective and too little emphasis on performing analyses that conform to Supreme Court Seventh Amendment precedent. This article explores the irony that in the course of reaching Seventh Amendment outcomes perceived to foster

Reason” For Justifying the Third Festo Rebuttal Criterion?, 82 CHI.-KENT L. REV. 1655 (2007) (With respect to the third criterion suggested by the Supreme Court for rebutting a presumption of the surrender of equivalents under the doctrine of prosecution history estoppel, Conway observes that “it is arguable that because the third criterion as it stands is so vague, patent practitioners and patentees have been too confused to even utilize it.”).

18. U.S. CONST. art. I, § 8, cl. 8.

19. See generally DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* (2009).

20. Adam Mossoff, *Exclusion and Exclusive Use in Patent Law*, 22 HARV. J.L. & TECH. 321 (2009).

21. BESSEN & MEURER, *supra* note 2.

22. The Seventh Amendment states in relevant part that “[i]n Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.” U.S. CONST. amend. VII.

23. The United States Court of Appeals for the Federal Circuit, referred to herein as simply “the Federal Circuit,” is the specialized court established by Congress in 1982 to hear, among other things, appeals in patent cases. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (relevant provisions codified as amended in scattered sections of 28 U.S.C.); see Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989).

certainty and uniformity in patent law, the Federal Circuit has engaged in expedient and unprincipled analyses that include statements and intermediate conclusions that have themselves spawned multiple and widespread problems. Compounding these problems, the Supreme Court has shown excessive deference to the Federal Circuit in the area of Seventh Amendment issues, rarely reviewing such decisions²⁴ despite showing an increased willingness in recent years to review Federal Circuit decisions on many other issues.²⁵ As a result, the faulty reasoning in some of the Seventh Amendment decisions of the Federal Circuit has spread like a virus contaminating substantive theories of patent law, unchecked by Supreme Court review.

This article will examine in detail two key decisions of the Federal Circuit on Seventh Amendment issues that are flawed in their analyses and inconsistent with Supreme Court precedent. In order to establish this latter point, the article will begin with an in-depth review of the Seventh Amendment analysis in a landmark Supreme Court case that addresses a Seventh Amendment issue related to patent claim construction. This article will also address the manner in which the two flawed decisions of the Federal Circuit have contributed to the crises in three areas of substantive patent law:²⁶ claim construction, the doctrine of equivalents and prosecution

24. The Supreme Court's landmark decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), discussed in Part I A herein, is its only major decision in the area of Seventh Amendment rights in patent cases.

25. See, e.g., *Bilski v. Kapos*, 130 S.Ct. 3218 (2010) (patentable subject matter); *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617 (2008) (patent exhaustion); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) (obviousness); *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007) (applicability of 35 U.S.C. §271(f)); *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007) (patent licensee challenges to patent validity under the Declaratory Judgment Act); *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (standard for granting permanent injunctive relief); *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28 (2006) (antitrust law and proof of market power in a tying arrangement involving a patented product).

26. Another area of patent law in which one of these two Seventh Amendment decisions of the Federal Circuit has indirectly created problems is the standard of appellate review of patent claim construction. This area of crisis in patent law was addressed in an earlier article in which the Federal Circuit's intermediate conclusion that claim construction is purely an issue of law, reached in dealing with the Seventh Amendment issue in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 988 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996), was shown to have infected the choice of a standard of appellate review for patent claim construction. The de novo standard was subsequently reaffirmed in *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). See Eileen M. Herlihy, *Appellate Review of Patent Claim Construction: Should the Federal Circuit Be Its Own Lexicographer in Matters Related to the Seventh Amendment?*, 15 Mich. Telecomm. & Tech. L. Rev. 469 (2009), available at <http://www.mtlr.org/volfifteen/herlihy.pdf>.

history estoppel. In each of these areas of law relating to claim scope, the ripple effect of the flawed Seventh Amendment analyses has had a detrimental impact on the development of substantive law.

The thesis of this article is addressed in three parts. Part I of this article begins with an examination of the Seventh Amendment analysis of the Supreme Court in *Markman v. Westview Instruments, Inc.*,²⁷ in which the Court held that a judge, rather than a jury, should decide issues of patent claim construction. Part I continues with a detailed review of the manner in which the Federal Circuit's underlying decision differed in its analysis from the Supreme Court decision. Part I addresses the Federal Circuit's persistence in straying from the Supreme Court's approach to Seventh Amendment issues, and its persistence in applying a law versus fact analysis, consistently stating that claim construction is purely an issue of law. Part I concludes with a review of three areas of substantive law related to claim construction that have suffered as a result: the proper use of dictionaries in claim construction, the use of expert testimony and evidence, and the role of one of ordinary skill in the art.

Part II of this article addresses the decision of the Federal Circuit in *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*,²⁸ in which the court held that juries should decide issues of infringement under the doctrine of equivalents, again following a flawed analysis rooted in the law versus fact distinction. Part II continues with a discussion of the Supreme Court's failure to review the Seventh Amendment issue at stake in that Federal Circuit decision, and the undue deference displayed by the Supreme Court towards the Federal Circuit. Part II concludes with a review of three problem areas in the substantive law related to the doctrine of equivalents that have been created or exacerbated as a result: the uncertain identity of the nature and jurisprudential basis of the doctrine of equivalents, the extent to which the doctrine of equivalents involves issues of both claim scope and infringement, and the tension between claim scope under the doctrine of equivalents and claim construction.

Part III of this article addresses the decisions of the Federal Circuit and the Supreme Court in the *Festo* litigation,²⁹ which include a number of important decisions that rapidly and repeatedly altered the substantive law of prosecution history estoppel. Part III continues

27. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

28. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. 1995), *rev'd on other grounds*, 520 U.S. 17 (1997).

29. See *supra* note 16.

with a discussion of the pressure faced by the Federal Circuit to alleviate some of the tension that had been created by its Seventh Amendment decisions in *Markman* and *Hilton Davis*. Part III discusses the Federal Circuit's push to "remedy" the situation by attempting to change the long standing rules for the application of the doctrine of prosecution history estoppel in order to minimize the availability of the doctrine of equivalents. Part III concludes with a review of the enormous complexity that has been introduced into the law of prosecution history estoppel as a result.

I. SEVENTH AMENDMENT DECISIONS AND THE LAW OF CLAIM CONSTRUCTION

A. *The Supreme Court's Seventh Amendment Decision in Markman*

The rights associated with any given patent are determined based on the claims of the patent.³⁰ The claims of a patent are often said to set forth the "metes and bounds" of these rights.³¹ Therefore, the issues surrounding the construction of patent claims are of utmost importance. Judge Rich summed it up succinctly: ". . . *the name of the game is the claim.*"³²

Moreover, it is well established in patent law that claims are to be interpreted based upon the understanding conveyed to one of ordinary skill in the relevant art at the time of the invention by the words and phrases used in the claims.³³ Furthermore, it is well settled that the words in the claims should be interpreted through the eyes of one of skill in the art when read in light of the patent specification, all of the claims, and the prosecution history.³⁴ In theory, therefore, the

30. 35 U.S.C. § 112 (1975).

31. CRAIG ALLEN NARD, *THE LAW OF PATENTS* 394 (2008).

32. Giles S. Rich, *The Extent of the Protection and Interpretation of Claims—American Perspectives*, 21 INT'L REV. INDUS. PROP. & COPYRIGHT L. 497, 499 (1990), *quoted in* *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1539 (Fed. Cir. 1995) (Plager, J., dissenting) (emphasis in original).

33. *See, e.g.,* *Pfizer, Inc. v. Teva Pharmaceuticals, USA, Inc.*, 429 F.3d 1364, 1372-73 (Fed. Cir. 2005) ("When interpreting claims, we inquire into how a person of ordinary skill in the art would have understood claim terms at the time of the invention." (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005) (en banc))).

34. *See, e.g.,* *Ortho-McNeil Pharmaceutical, Inc. v. Caraco Pharmaceutical Laboratories*, 476 F.3d 1321, 1326 (Fed. Cir. 2007) ("A person of ordinary skill in the art is deemed to have read the claim term in the context of the entire patent, including the other claims, the specification and the prosecution history." (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed.Cir.2005) (en banc))); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1224 (Fed. Cir.1995) (Mayer, J., concurring) ("Claim interpretation demands an objective inquiry into how

knowledge of one of ordinary skill in the pertinent art should be central to claim interpretation and claim scope. The claims of a patent, as properly construed, should ideally serve as notice to those of ordinary skill in the pertinent art as to the scope of the patent.³⁵

In *Markman v. Westview Instruments, Inc.*,³⁶ the Supreme Court addressed the issue of whether a jury should be involved in the determination of the meaning of a patent claim. The issue in the case focused on resolving conflicting testimony regarding a term of art in the claim.³⁷ The Supreme Court clearly identified at the outset of its unanimous opinion that the issue at stake in the case involved a determination of Seventh Amendment rights.

The question here is whether the interpretation of a so-called patent claim, the portion of the patent document that defines the scope of the patentee's rights, is a matter of law reserved entirely for the court, *or subject to a Seventh Amendment guarantee* that a jury will determine the meaning of any disputed term of art about which expert testimony is offered.³⁸

The Supreme Court immediately stated its ultimate holding on the issue: “[w]e hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.”³⁹ The Court then proceeded with an in-depth analysis to support the holding under the Seventh Amendment.

In addressing the issue that it faced, the Supreme Court turned to the traditional historical test” established in its Seventh Amendment precedent.⁴⁰

one of ordinary skill in the relevant art at the time of the invention would comprehend the disputed word or phrase in view of the patent claims, specification, and prosecution history.”). The prosecution history of a patent is the written record of the proceedings associated with the application for and allowance of a patent.

35. See, e.g., *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1145 (Fed. Cir. 2005).

36. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996). The *Markman* case involved a question of claim construction of a business method patent related to a system for tracking clothing in dry-cleaning businesses. *Id.* at 374. The meaning of the term “inventory” within the patent claims was at issue. *Id.* at 375.

37. *Id.* at 372.

38. *Id.* (emphasis added).

39. *Id.*

40. *Id.* at 376. The Supreme Court in *Markman* attributed the “historical test” to the era of Justice Story, citing *United States v. Wonson*, 28 F. Cas. 745, 750 (C.C. Mass. 1812) (No. 16,750). The “historical test” has been continuously applied in Seventh Amendment analyses since at least 1935, when the Supreme Court issued its decision in *Baltimore & Carolina Line, Inc. v. Redman*, 295 U.S. 654 (1935). See generally Margaret L. Moses, *What the Jury Must Hear: The Supreme Court's Evolving Seventh Amendment Jurisprudence*, 68 Geo. Wash. L. Rev. 183, 187-98 (2000).

[W]e ask, first, whether we are dealing with a cause of action that either was tried at law at the time of the founding [when the Seventh Amendment was adopted] or is at least analogous to one that was. . . . If the action in question belongs in the law category, we then ask whether the particular trial decision must fall to the jury in order to preserve the substance of this common-law right as it existed in 1791.⁴¹

Under the first part of the test, the Court looked to eighteenth century actions that were tried at law, as opposed to equity or admiralty,⁴² in the courts in England. The Court quickly concluded that “there is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago.”⁴³ The application of the second part of the historical test, on the other hand, was far more difficult for the Court.

In grappling with the second part of the historical test, the question of “whether a particular issue occurring within a jury trial (here the construction of a patent claim) is itself necessarily a jury issue,” the Court found that the historical evidence regarding the eighteenth century English practice “provides no clear answer.”⁴⁴ Lacking the benefit of a “fool-proof test,”⁴⁵ the Supreme Court had to determine whether a jury must construe patent claims, and in particular, disputed terms of art within the patent claims, in order “to preserve the ‘substance of the common-law right of trial by jury.’”⁴⁶ Noting that the standard is “a pretty blunt instrument for drawing distinction,” the Court pointed out that it had “tried to sharpen it, to be sure, by reference to the distinction between substance and procedure,” and had “also spoken of the line as one between issues of fact and law.”⁴⁷ However, it is extremely significant that the Court in *Markman* did not choose the approach of trying to draw a line between fact and law to determine whether any part of patent claim construction must fall to the jury under the Seventh Amendment.

41. *Markman*, 517 U.S. at 376 (citation omitted).

42. The inquiry under the historical test is largely rooted in the historical distinction between actions at law and actions in equity, with the right to a jury trial historically available for actions at law but not for actions in equity. *See generally* James Fleming, Jr., *Right to a Jury Trial in Civil Actions*, 72 Yale L.J. 655 (1963). The inquiry also involves distinguishing actions at law from actions historically brought in admiralty. *See, e.g.*, *Parsons v. Bedford*, 28 U.S. (3 Pet.) 433, 446 (1830) (referring to the Seventh Amendment, the Supreme Court stated “[t]he phrase ‘common law,’ found in this clause, is used in contradistinction to equity, and admiralty, and maritime jurisprudence.”).

43. *Markman*, 517 U.S. at 377.

44. *Id.* (citations omitted).

45. *Id.*

46. *Id.* (emphasis in original) (quoting *Tull v. United States*, 481 U.S. 412, 426 (1987)).

47. *Id.* at 378.

Rather, labeling claim construction a “mongrel practice,” in immediate juxtaposition to the fact versus law reference, the Court chose a nested historical approach:

But the sounder course, when available, is to classify a *mongrel practice* (like construing a term of art following receipt of evidence) by using the historical method, much as we do in characterizing the suits and actions within which they arise. Where there is no exact antecedent, the best hope lies in comparing the modern practice to earlier ones whose allocation to court or jury we do know.⁴⁸

The Court, however, decided that this approach also failed to resolve the issue. The Court found no evidence of patent claims prior to 1790 in either English patent law or the practices in American states, and therefore “no direct antecedent of modern claim construction in the historical sources.”⁴⁹ The Court found some early cases that involved the construction of patent specifications and determined that the issue of construing a patent specification was the closest analogy to patent claim construction at the time relevant to the Seventh Amendment analysis.⁵⁰ However, the Court concluded that none of the cases established that construction of disputed terms in patent specifications was an issue for the jury.⁵¹

Unable to resolve the issue of whether a jury must construe terms of art in a patent claim based upon the evidence of common law practice at the time the Seventh Amendment was adopted, the Court turned for guidance to existing precedent, and considered the “relative interpretative skills of judges and juries,” and statutory policies.⁵² Reviewing both case precedent and treatises, the Court concluded that these authorities did not indicate that juries had been involved in construing terms of art in patents, but instead supported delegating the task of claim construction to the court.⁵³

48. *Id.* (emphasis added). Since the term “mongrel practice” in the opinion followed immediately after the statement “[w]e have also spoken of the line as one between issues of fact and law,” it appears clear that the court intended the term “mongrel practice” to refer to a mixed question of fact and law.

49. *Id.* at 378-79.

50. *Id.* at 379-80.

51. *Id.* at 379-84. The Supreme Court refused to imply that juries must have construed claims in reaching documented verdicts, finding it more likely that the judge interpreted the patent documents. *Id.* at 381-82 (“There is no more reason to infer that juries supplied plenary interpretation of written instruments in patent litigation than in other cases implicating the meaning of documentary terms, and we do know that in other kinds of cases during this period judges, not juries, ordinarily construed written documents.”).

52. *Id.* at 384.

53. *Id.* at 384-88.

The Court considered whether “functional considerations” weighed in favor of having a judge, rather than a jury, define terms of art within the patent claims, stating:

*[W]hen an issue “falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.”*⁵⁴

The Court concluded that judges are likely to be better at construing patent claims than jurors, on the basis that judges frequently construe written instruments, have special training and are therefore more likely to reach “a proper interpretation.”⁵⁵ The Court dismissed the argument that the jury should be involved in claim construction to evaluate witness credibility when testimony is offered as to the meaning of a term of art “peculiar to a trade or profession,” concluding that these determinations would be “subsumed” within the judge’s interpretation of the entire document.⁵⁶ The Court acknowledged that cases could arise in which a credibility judgment concerning conflicting expert testimony would be the determining factor in construing a term of art but expressed doubt that many patent cases would turn on such credibility judgments.⁵⁷ The Court concluded that “*despite its evidentiary underpinnings,*” the construction of terms of art within a claim should be left to the judge who has the overall task of construing the patent.⁵⁸

In the final portion of its decision, the Court addressed the importance of providing “uniformity” in the treatment of patents, a policy issue that the Court stated provides an “independent reason to allocate all issues of construction to the court.”⁵⁹ Linking the policy of uniformity to certainty, the Court stated that the limits of patent

54. *Id.* at 388-90 (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985) (emphasis added)).

55. *Markman*, 517 U.S. at 388-89 (quoting *Parker v. Hulme*, 7 West.L.J. 417, 18 F. Cas. 1138, 1140 (C.C.E.D. Pa. 1849) (No. 10,740)).

56. *Markman*, 517 U.S. at 389 (“In the main, we expect any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole.”).

57. *Id.* at 389.

58. *Id.* at 389-90 (emphasis added) (Comparing the jury’s virtues to the training and ability of judges, the Supreme Court in *Markman* stated that a jury’s “capabilities to evaluate demeanor,” “to sense the ‘mainsprings of human conduct’” (quoting *Comm’r of Internal Revenue v. Duberstein*, 363 U.S. 278, 289 (1960)) and “to reflect community standards” are “much less significant” in the instance of construing terms of art within a patent claim than a judge’s “trained ability to evaluate the testimony in relation to the overall structure of the patent” in order to “preserve the patent’s internal coherence.”).

59. *Markman*, 517 U.S. at 390.

protection need to be known in order to protect patentees, to prevent others from being discouraged to invent due to uncertainty regarding infringement, and to ensure that the public will ultimately get the proper benefit of patents.⁶⁰ The Supreme Court also referenced the desire of Congress to support uniformity in patent law, and thereby encourage innovation, by creating the Federal Circuit.⁶¹ Applying these policy goals, the Court stated that uniformity would be “ill served by submitting issues of document construction to juries,” even though the Court acknowledged that issue preclusion would apply to prevent evidentiary questions from being retried in every new patent case.⁶² In the penultimate paragraph, the Court stated that *stare decisis* would provide a better route to attempt to foster uniformity in claim construction, reasoning that “*treating* interpretive issues as purely legal will promote (though it will not guarantee) intrajurisdictional certainty through the application of *stare decisis* on those questions not yet subject to inter-jurisdictional uniformity under the authority of the single appeals court.”⁶³

In its *Markman* decision, the Supreme Court repeatedly acknowledged the factual underpinnings of claim construction in the course of its analysis leading to the holding that there is no Seventh Amendment right to have a jury evaluate evidence related to “terms of art” in patent claims. The Court unequivocally labeled claim construction a “*mongrel practice*,” in immediate juxtaposition to a fact versus law reference.⁶⁴ The Court acknowledged that the construction of terms of art within a claim is an issue that “*falls somewhere between a pristine legal standard and a simple historical fact*,”⁶⁵ and has “*evidentiary underpinnings*.”⁶⁶ While the language regarding uniformity and *stare decisis* has created internal tension within the Court’s opinion, it is part of a policy consideration cited as an “independent reason” to allocate claim construction issues to a judge rather than a jury.⁶⁷ It should not be viewed as negating any of the statements made by the Court in its Seventh Amendment

60. *Id.* (quoting *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938); *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942), and *Merrill v. Yeomans*, 94 U.S. 568, 573 (1877)).

61. *Markman*, 517 U.S. at 390.

62. *Id.* at 391.

63. *Id.* (first emphasis added). The Court favored *stare decisis* because issue preclusion does not apply to “new and independent infringement defendants even within a given jurisdiction.” *Id.*

64. *Markman*, 517 U.S. at 378 (emphasis added).

65. *Id.* at 388 (emphasis added) (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985)).

66. *Markman*, 517 U.S. at 389-90 (emphasis added).

67. *Id.* at 390.

analysis.⁶⁸

It is important to note that while the Court considered factors beyond those falling within the traditional historical test, the Court expressly stated that its Seventh Amendment decision was not based on the application of a fact versus law test:

Because we conclude that our precedent supports classifying the question as one for the court, *we need not decide either the extent to which the Seventh Amendment can be said to have crystallized a law/fact distinction*, or whether post-1791 precedent classifying an issue as one of fact would trigger the protections of the Seventh Amendment if (unlike this case) there were no more specific reason for decision.⁶⁹

This position has not been accepted by the Federal Circuit.

B. The Federal Circuit's Perpetuation of Claim Construction as Purely an Issue of Law

While the Supreme Court in its *Markman* decision clearly and unanimously framed the issue of whether there should be jury involvement in the construction of patent claims as one that required the application of the Seventh Amendment and triggered the historical test rather than a fact versus law approach, the majority of the Federal Circuit had not taken that path in its earlier decision below. Rather, in its en banc decision in *Markman*,⁷⁰ which was the subject of the Supreme Court's review, the majority of the Federal Circuit had expressly embraced a fact versus law approach in concluding that "the interpretation and construction of the patent claims . . . is a matter of law exclusively for the court."⁷¹ The majority of the Federal

68. The stare decisis language in the Supreme Court's decision has led to confusion and tension, and I believe it should be revisited and clarified. In any event, since the Supreme Court used the word "*treating*" in the phrase "*treating* interpretive issues as purely legal," I believe the Court was discussing a policy position that it knew to be a legal fiction. *Id.* at 391.

69. *Id.* at 384 n.10 (emphasis added) (citations omitted).

70. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). In the Federal Circuit's subsequent *Cybor* decision, the majority labels its own *Markman* en banc decision as *Markman I*, while referring to the Supreme Court's decision as *Markman II*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1451-54 (Fed. Cir. 1998) (en banc). The author of this article declines to use the commonly applied labels *Markman I* and *Markman II* because the labels appear to imply a parity between the authority of the Federal Circuit and the United States Supreme Court which is, of course, misleading.

71. *Markman*, 52 F.3d at 970-71. The majority opinion was written by Chief Judge Archer, and joined by Judges Rich, Nies, Michel, Plager, Lourie, Cleverger, and Schall. Judges Mayer and Rader filed opinions concurring in the judgment but not adopting the majority position that claim construction "is a matter of law exclusively for the court." See *id.* at 989-99. Judge Mayer denounced the treatment of the Seventh Amendment by the majority (*id.* at 989-90, 992), and Judge Rader strongly criticized the majority for reaching the issue of "[w]hether

Circuit framed the issue below as follows: “*we must distinguish law from fact.*”⁷² By approaching the issue in this manner, the majority of the Federal Circuit engaged in what amounted to an end-run-around the Seventh Amendment, defining away any factual underpinnings that would trigger a rigorous Seventh Amendment analysis.

The obstacle that the majority of the Federal Circuit faced in its analysis was its own precedent.⁷³ The majority acknowledged that “[t]he opinions of this court have contained some inconsistent statements as to whether and to what extent claim construction is a legal or factual issue, or a mixed issue.”⁷⁴ Moreover, the majority acknowledged that it had previously stated or held in a significant number of its earlier opinions that “there may be jury triable fact issues in claim construction.”⁷⁵ Nevertheless, the majority decided that the earliest of these opinions was lacking in “authoritative support,”⁷⁶ and that the cases that followed in this line provided “no

claim construction can involve subsidiary facts” (*id.* at 998), on the basis that the issue was not properly before the court. Judge Newman dissented on the basis of the majority’s failure to properly apply the Seventh Amendment. *Id.* at 999-1026.

72. *Id.* at 976 (emphasis added).

73. The *Markman* case had originally been tried to a jury that was instructed as part of its charge to “determine the meaning of the claims.” *Id.* at 973 (quoting excerpts from the jury instructions). Following a jury verdict of infringement of some of the claims at issue in response to general interrogatories, the trial judge had granted a motion for judgment as a matter of law (JMOL) for the defendants, stating that claim construction is a matter of law for the court. *Id.* The patent owner appealed on the grounds that it was not only proper for the jury to interpret the patent claims, it was required under Federal Circuit precedent. *Id.* at 973-74. The patent owner, *Markman*, cited *Polumbo v. Don – Joy Co.*, 762 F.2d 969, 974 (Fed. Cir. 1985) for the proposition that a dispute over the meaning of a term in a patent claim presents a factual question. *Markman*, 52 F.3d at 973-974. *Markman* also cited *Tol-O-Matic, Inc. v. Proma Produkt-Und Marketing Gesellschaft m.b.H.*, 945 F.2d 1546, 1550-52 (Fed. Cir. 1991) for the proposition that a jury’s claim construction should be given deference. *Markman*, 52 F.3d at 974.

74. *Markman*, 52 F.3d at 976.

75. *Id.* at 977. The majority of the Federal Circuit discussed “a significant line of cases [that] has developed in our precedent” that it had to resolve. *Id.* The majority specifically referred to the following cases decided between 1984 and 1997: *McGill Inc. v. John Zink Co.*, 736 F.2d 666, 672 (Fed. Cir. 1984); *Bio-Rad Labs, Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 614 (Fed. Cir. 1984); *Palumbo v. Don-Joy Co.*, 762 F.2d 969, 974 (Fed. Cir. 1985); *Moeller v. Ionetics, Inc.* 794 F.2d 653, 657 (Fed. Cir. 1986); *H.H. Robertson Co. v. United Steel Deck, Inc.*, 820 F.2d 384, 389 (Fed. Cir. 1987); and *Perini America, Inc. v. Paper Converting Machine Co.*, 832 F.2d 581, 584 (Fed. Cir. 1987). *Markman*, 52 F.3d at 977. The court also indicated that “[t]he language from these opinions, to the effect that disputes over the meaning of claim language may raise factual questions reviewed for substantial evidence or clear error, as the case may be, continued to propagate through our precedent,” culminating in *Tol-O-Matic, Inc. v. Proma Produkt-Und Mktg. Gesellschaft m.b.H.*, 945 F.2d 1546, 1550 (Fed. Cir. 1991). *Markman*, 52 F.3d at 977.

76. *Markman*, 52 F.3d at 977. The Federal Circuit *Markman* majority stated that *McGill Inc. v. John Zink Co.*, 736 F.2d 666 (Fed. Cir. 1984) was the first Federal Circuit case to state that “claim construction may have underlying factual inquiries that must be submitted to a jury.” *Markman*, 52 F.3d at 976. The Federal Circuit *Markman* majority took the position, however, that the *McGill* case mistakenly relied upon a case for that proposition when the case cited

firmer basis for the view.”⁷⁷ These positions were vigorously refuted in one concurring opinion⁷⁸ and a dissenting opinion.⁷⁹ Further, the majority proclaimed that the first Federal Circuit opinion that dealt with an issue of claim construction explicitly stated that claim construction was a matter of law,⁸⁰ and that another line of its precedent continued to adhere to the view that “claim construction is strictly a question of law for the court.”⁸¹

These positions of the majority were also challenged. In a concurring opinion, one judge questioned the existence of such a line of cases, rejecting the majority’s interpretation of the case law.⁸² In a dissenting opinion, another judge discussed her view that statements that claim construction present an issue of law are not in any way incompatible with the existence of underlying questions of fact.⁸³

actually stood for the opposite position. *Markman*, 52 F.3d at 976 (discussing *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753 (Fed. Cir. 1984)).

77. *Markman*, 52 F.3d at 977.

78. *Markman*, 52 F.3d at 989-90 (Mayer, C.J., concurring). Judge Mayer reviewed and discussed Federal Circuit precedent (*id.* at 989-90), emphatically rejecting the majority’s “revisionist reading of precedent to loose claim interpretation from its factual foundations.” *Id.* at 990. Judge Mayer concluded that the majority’s pronouncements on Federal Circuit precedent represented a reversal of position. “Contrary to what it says today, this court (including the judges in the majority) has always held that claim interpretation is a matter of law depending on underlying factual inquiries.” *Id.* at 989 (citations omitted).

79. *Id.* at 999-1000, 1017-21 (Newman, J. dissenting). Judge Newman sharply criticized the majority’s “new rule” (*id.* at 1000) that claim construction is a matter of law solely for the court. Judge Newman pointed out that “[h]eretofore, the disputed meaning of technologic terms and words of art has been treated by Federal Circuit precedent as an ‘underlying fact’ on which the legal effect of the patent is based.” *Id.* at 999. Judge Newman further stated that the “meaning and scope of the technologic terms and words of art used to define patented inventions” are frequently in dispute and that the resolution of such disputes involves “the weight, credibility, and probative value of conflicting evidence.” *Id.* While agreeing with the majority that the construction of patent claims is a matter of law, Judge Newman rejected the majority’s position that there are no underlying facts in claim construction. *Id.* at 1000 (“The legal effect of the patent claim is to establish the metes and bounds of the patent right to exclude; this is a matter of law. But this does not deprive the underlying facts of their nature as fact.”).

80. *Id.* at 976 (citing *SSIH Equip. S.A. v. United States Int’l Trade Comm’n*, 718 F.2d 365, 376 (Fed. Cir. 1983) (originally reported at 713 F.2d 746-60)).

81. *Id.* at 977.

82. *Markman*, 52 F.3d at 990 n.2 (Mayer, C.J., concurring). Judge Mayer strongly criticized the majority. He stated that while the majority “pretends” there is a separate line of Federal Circuit cases holding that claim construction is strictly a matter of law for the court, never involving any underlying facts for a jury, the cases cited by the majority do not support its contention. Judge Mayer pointed out that most of the cases cited by the majority were bench trials, “a puzzling source for guidance on the commands of the Seventh Amendment.” *Id.* Further, Judge Mayer stated that other cases cited by the majority involved factual disputes “inadequate” to support a jury verdict.

83. *Markman*, 52 F.3d at 1000 (Newman, J. dissenting). While agreeing with the majority that the construction of patent claims is a matter of law, Judge Newman rejected the majority’s position that there are no underlying facts in claim construction. “The legal effect of the patent claim is to establish the metes and bounds of the patent right to exclude; this is a matter of law. But this does not deprive the underlying facts of their nature as fact.” *Id.*

After criticizing the significant number of Federal Circuit cases that had stated or held that there might be “jury triable fact issues” involved in claim construction, the majority turned to Supreme Court precedent. The majority stated that “the Supreme Court has repeatedly held that the construction of a patent claim is a matter of law exclusively for the court,” citing, without quotation or analysis, Supreme Court cases from 1848 through 1904.⁸⁴ This interpretation of precedent was again vigorously rejected by two Federal Circuit judges in one concurring opinion⁸⁵ and a dissenting opinion.⁸⁶

As support for its reading of precedent, the majority stated that courts should construe patent claims as a matter of law and should not delegate the task to a jury as a matter of fact because “[i]t has long been and continues to be a fundamental principle of American law that ‘the construction of a written evidence is exclusively with the court.’”⁸⁷

The majority stated that since “[t]he patent is a fully integrated written instrument,” it is “uniquely suited for having its meaning and scope determined entirely by a court as a matter of law,” under this general rule.⁸⁸

According to the majority, policy considerations also support this rule. The majority pronounced that there is “much wisdom” in having the court construe patent claims since the construction defines “the federal legal rights created by the patent document.”⁸⁹ Moreover, the majority discussed both issues of fair notice to competitors and the confidence needed by all parties that a judge “trained in the law” would apply “established rules of construction” to arrive at “the true and consistent scope of the patent owner’s rights.”⁹⁰

84. *Id.* at 977-78.

85. *Id.* at 993-96 (Mayer, C.J., concurring). Judge Mayer carefully discussed Supreme Court precedent, concluding that the opinions of the highest court supported a jury role in deciding any “real factual dispute” (*id.* at 994) that might be raised by extrinsic evidence in claim construction. *Id.* at 993-96.

86. *Id.* at 1002, 1021-25 (Newman, J. dissenting) (“The authority on which the majority relies simply does not support its statement that ‘the Supreme Court has repeatedly held that construction of a patent claim is a matter of law exclusively for the court.’” *Id.* at 1021 (quoting Majority opinion at 994)).

87. *Markman*, 52 F.3d at 978 (quoting *Levy v. Gadsby*, 7 U.S. 180, 185 (1805) (Marshall, C.J.)).

88. *Id.* at 978.

89. *Id.*

90. *Id.* at 978-79.

Based on its analysis, the Federal Circuit majority announced its holding:

We therefore settle inconsistencies in our precedent and hold that in a case tried to a jury, the court has the power and obligation to construe as a matter of law the meaning of language used in the patent claim Because claim construction is a matter of law, the construction given the claims is reviewed *de novo* on appeal.⁹¹

It is striking that in the analysis leading up to this holding, the majority opinion does not apply, discuss, *or even mention* the Seventh Amendment.⁹² There is no application of the historical approach in the analysis. The majority opinion only briefly discusses the Seventh Amendment after reaching its holding.⁹³ The majority does so as rebuttal⁹⁴ to the Seventh Amendment positions asserted in the dissenting⁹⁵ and one of the concurring opinions⁹⁶ in the case. In its rebuttal, the majority acknowledged that under the Seventh Amendment, the right to a jury trial exists if an action “could be tried to a jury in 1791,” or if it is a statutory cause of action “analogous to common law actions.”⁹⁷ However, the majority stated that its holding “do[es] not deprive parties of their right to a jury trial in patent infringement cases,” but “*merely* holds that part of the infringement

91. *Id.* at 979.

92. *See id.* at 970-79.

93. *Id.* at 984.

94. *Id.* (“Yet the dissenting and one of the concurring opinions assert that our decision violates the Seventh Amendment. A close analysis of the bases underlying their arguments reveals, however, that they are unsupported by logic and precedent.”).

95. *Id.* at 1000, 1010-17 (Newman, J., dissenting). Judge Newman reserved her strongest criticism of the majority’s analysis and holding that claim construction is purely an issue of law with no underlying facts for its failure to take the Seventh Amendment into account.

Jury trial in patent cases is protected by the Seventh Amendment. Elimination of the jury is not this Court’s choice to make.

The constitutional right alone bars the majority’s new rule. The majority today denies 200 years of jury trial of patent cases in the United States, preceded by over 150 years of jury trial of patent cases in England, *by simply calling a question of fact a question of law*. The Seventh Amendment is not so readily circumvented.

Id. at 1000 (emphasis added).

96. *Id.* at 989-98 (Mayer, C.J., concurring). Judge Mayer wrote an opinion which concurred in the judgment but which empathetically rejected and vehemently criticized the majority’s holding that claim construction is a matter of law solely for the court. Judge Mayer warned that the majority opinion “jettisons more than two hundred years of jurisprudence and eviscerates the role of the jury preserved by the Seventh Amendment of the Constitution of the United States.” *Id.* at 989. Reviewing and discussing Federal Circuit precedent (*id.* at 989-90), Judge Mayer denounced the majority’s reversal of position on Seventh Amendment grounds. *Id.* at 990 (footnote omitted) (“So it is remarkable that the court so casually changes its collective mind, especially when the just cited precedent [by Judge Mayer] was compelled by the Seventh Amendment and not the mere preference of a sufficient number of judges.”).

97. *Id.* at 984 (majority opinion).

inquiry, construing and determining the scope of the claims in a patent, is strictly a legal question for the court.”⁹⁸

The Federal Circuit majority opinion in *Markman*, as previously stated, amounted to an end-run-around the Seventh Amendment. The majority of the Federal Circuit achieved this goal by denying that there were any issues of fact involved in claim construction. The majority took this position despite a significant number of contrary statements and holdings in its own prior decisions. It did so in order to avoid framing the issue of whether a jury should be involved in patent claim construction as one governed by an in-depth Seventh Amendment analysis. More importantly, it did so as a matter of expediency in order to reach the outcome it perceived to foster certainty and uniformity.

It is important to emphasize that the Federal Circuit’s *Markman* decision represented a major change in patent law up to that point in time. Not only did the Federal Circuit contradict, and in some instances overrule, cases in a “significant line”⁹⁹ of its own precedent, but it also took a different approach to analyzing issues of jury involvement in patent cases than it had in the past. The Federal Circuit had not always dodged Seventh Amendment issues. The analysis employed by the majority in the en banc *Markman* decision of the Federal Circuit differed dramatically from an earlier Federal Circuit panel decision in *In re Lockwood*.¹⁰⁰

In the *Lockwood* case, on a motion for rehearing, a panel of the Federal Circuit faced the issue of whether the defendant in a patent infringement suit had a right to a jury trial on its counterclaim for a declaratory judgment that the patent in suit was invalid.¹⁰¹ The panel had issued a writ of mandamus directing the district court to reinstate the jury demand on the counterclaim which the judge below had stricken.¹⁰² On rehearing, the panel addressed the Seventh Amendment issue, employing the traditional historical analysis set forth in Supreme Court precedent in order to determine whether the statutory cause of action for a declaratory judgment, as it relates to patent invalidity, should be considered analogous to causes of action

98. *Id.* (emphasis added).

99. *Id.* at 999 (Newman, J., Dissenting).

100. *In re Lockwood*, 50 F.3d 966 (Fed. Cir.), *cert. granted sub nom.*, American Airlines Inc. v. Lockwood, 515 U.S. 1121 (1995), *and subsequently dismissed as moot*, 515 U.S. 1182 (1995).

101. *In re Lockwood*, 50 F.3d at 968-69.

102. *Id.* at 969. The *Lockwood* panel on rehearing consisted of Judges Michel, Bennett, and Lourie. *Id.* at 968. A motion for a rehearing en banc was denied. *Id.* at 980.

heard at law, in equity, or in admiralty in England in 1791.¹⁰³ In the course of its analysis, the panel considered whether the Seventh Amendment guarantees were inapplicable under a “public rights” analysis: “[t]he Court has cautioned that the Seventh Amendment does not automatically entitle a party to a jury trial if Congress can and has assigned adjudication of the legal claim concerning such public right exclusively to an administrative agency.”¹⁰⁴ The panel quickly dismissed this possibility, stating that “assuming *arguendo* that patents confer purely public rights, litigation concerning those patent rights in Article III courts comes within the protection provided by the Seventh Amendment.”¹⁰⁵ Applying the historical analysis, the panel granted the writ of mandamus on rehearing, holding that there is a Seventh Amendment right to have factual questions relating to validity tried to a jury in a declaratory judgment counterclaim.¹⁰⁶

It should be noted that the *Lockwood* panel decision struck a nerve. While the Federal Circuit denied a motion for rehearing en banc,¹⁰⁷ Judge Nies authored an opinion dissenting from this later decision.¹⁰⁸ In it, Judge Nies stated: “No more important nor contentious an issue arises in patent law jurisprudence than the appropriate role of juries in patent litigation.”¹⁰⁹

Admittedly, in the *Lockwood* case the Federal Circuit did not have the authority to avoid the Seventh Amendment issue by declaring that there are no factual issues involved in patent validity questions that include challenges of obviousness. While the majority of the Federal Circuit in its en banc *Markman* decision applied a rationale that claim construction is purely an issue of law, devoid of any possible factual component, in evading a Seventh Amendment historical approach,¹¹⁰ the Federal Circuit was bound by Supreme

103. *Id.* at 971-76.

104. *Id.* at 972 n.5.

105. *Id.* In a decision dissenting from an order denying rehearing en banc, Judge Nies, joined by Chief Judge Archer and Judge Plager, disagreed with the panel's public rights analysis stating that “[t]he validity of a patent involves public rights not private rights” and “[n]o Seventh Amendment jury rights adhere to a determination of public rights.” *Id.* at 981 (Nies, J., joined by Archer, C. J. and Plager, J., dissenting from the order denying rehearing en banc).

106. *Id.* at 976, 980. The panel of the Federal Circuit vacated its prior order granting mandamus, which it stated contained erroneous statements (*id.* at 969), and granted mandamus on the basis of the analysis contained in the rehearing decision (*id.* at 969, 980).

107. *Id.* at 980.

108. *Id.* at 980-90 (Nies, J., joined by Archer, C. J. and Plager, J., dissenting from the order denying rehearing en banc).

109. *Id.* at 980. In the dissent, Judge Nies noted that while he did not question the existence of a jury trial right in patent infringement suits seeking damages, “saying such an overall right exists tells us nothing about which *issues* must be decided by a jury upon demand of a litigant and which *issues* are for the judge to decide.” *Id.* at 981 (emphasis in original).

110. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976-88 (Fed. Cir. 1995).

Court precedent at the time of its *Lockwood* decision that explicitly recognized underlying factual inquiries in determining obviousness.¹¹¹ Therefore, in *Lockwood* the Federal Circuit could not take the path chosen by the majority in its subsequent *Markman* decision.

It is of critical significance, however, that even after the Supreme Court issued its opinion in the *Markman* case,¹¹² the Federal Circuit persisted in its position that claim construction is purely an issue of law, devoid of any factual component, based upon the Federal Circuit's own majority analysis in its *Markman* decision.¹¹³ While the position of the majority of the Federal Circuit in its *Markman* decision represented a major change in Federal Circuit law at the time, it is the Federal Circuit's subsequent persistence in relying upon a law versus fact analysis, which was specifically rejected by the Supreme Court in its *Markman* analysis,¹¹⁴ that is stunning.

After the Supreme Court issued its decision in the *Markman* case, a majority of the Federal Circuit judges stated in an en banc decision in *Cybor Corp. v. FAS Technologies, Inc.*¹¹⁵ that the construction of patent claims is "a purely legal issue," and is therefore subject to de novo review on appeal.¹¹⁶ The Federal Circuit's majority holding in *Cybor* with respect to the standard of appellate review of patent claim construction, an issue not addressed by the Supreme Court in its *Markman* decision, was based upon the Federal Circuit's own majority opinion in *Markman*,¹¹⁷ and reaffirmed the Federal Circuit's prior position.¹¹⁸ It did not follow from the Seventh Amendment analysis employed by the Supreme Court in its *Markman* decision. It followed from the law versus fact approach taken by the majority of the Federal Circuit in its *Markman* decision, an approach which the Supreme Court expressly refused to apply in its *Markman* analysis. Nevertheless, the majority of the Federal Circuit in the en banc decision in the *Cybor* case proclaimed that its de novo standard of review was supported by the Supreme Court's *Markman*

111. *In re Lockwood*, 50 F.3d at 971 n.4 (citing the Supreme Court's decision in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) for the proposition that there are factual inquiries underlying the ultimate legal question of whether a patent is invalid for obviousness under 35 U.S.C. § 103).

112. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

113. *Markman*, 52 F.3d 967.

114. *Markman*, 517 U.S. at 384 n.10.

115. *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

116. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d at 1451, 1454 (Fed. Cir. 1998).

117. *Id.* at 1451 (citing *Markman*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)).

118. *Markman*, 52 F.3d at 979.

decision.¹¹⁹

The Federal Circuit majority in *Cybor* stated that the Supreme Court, in its *Markman* decision, addressed the issue of “under which category, fact or law, claim construction should fall.”¹²⁰ The Federal Circuit *Cybor* majority pronounced that “[n]othing in the Supreme Court’s [*Markman*] opinion supports the view that the Court endorsed a silent, third option—that claim construction may involve subsidiary or underlying questions of fact,”¹²¹ and that the *Markman* decision of the Supreme Court “conclusively and repeatedly states that claim construction is purely legal.”¹²² This later position of the majority of the Federal Circuit in characterizing the Supreme Court’s *Markman* opinion was vehemently opposed and criticized by other judges of the Federal Circuit.¹²³ However, despite continuing criticism from numerous judges on the Federal Circuit,¹²⁴ and other members of the bench and the bar,¹²⁵ the Federal Circuit has continued to apply the de

119. *Cybor Corp.*, 138 F.3d at 1451.

120. *Id.* at 1455.

121. *Id.* (footnote omitted).

122. *Id.* at 1456.

123. *Id.* at 1463-72 (Mayer, C.J., joined by Newman, J., concurring in judgment but disagreeing with opinion) (Stating that the Federal Circuit’s majority opinion in *Cybor* “profoundly misapprehends” the Supreme Court’s *Markman* decision (*id.* at 1463), Judge Mayer stated that the Supreme Court did not adopt the Federal Circuit’s reasoning in *Markman*: “Though it could have done so easily, the [Supreme] Court chose not to accept our formulation of claim construction: as a pure question of law to be decided de novo in all cases on appeal.” *Id.* at 1464 (footnote omitted)); *id.* at 1473-78 (Rader, J., dissenting from the “pronouncements on claim interpretation in the en banc opinion,” concurring in the judgment, and joining part IV of the opinion) (Judge Rader stated that “the Supreme Court repeatedly intimated [in its *Markman* decision] that claim construction was *not* a purely legal matter.” *Id.* at 1473 (emphasis added); *id.* at 1478-81 (Newman, J., joined by Mayer, C.J., filing “additional views” critical of the de novo standard of review) (Judge Newman observed that while the Federal Circuit took the position in *Markman* that “in patent cases, unlike any other area of law, a disputed question of the meaning, scope and usage of terms of technologic art is not a question of fact, or even of law based on underlying fact, but is pure law,” the Supreme Court in its *Markman* decision “relieved us of adherence to this fiction, by its recognition of the factual component of claim interpretation.” *Id.* at 1480).

124. See, e.g., *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330-35 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting) (In Judge Mayer’s dissent, he severely criticized the de novo standard of review, stating in part “[n]ow more than ever I am convinced of the futility, indeed the absurdity, of this court’s persistence in adhering to the falsehood that claim construction is a matter of law devoid of any factual component.” *Id.* at 1330.); see also *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1040-41 (Fed. Cir. 2006) (Michel, C.J., dissenting, joined by Rader, J.); *id.* at 1043 (Newman, J., dissenting); *id.* at 1044-45 (Rader, J., dissenting); *id.* at 1046 (Moore, J., dissenting).

125. See, e.g., Brief for the American Bar Association as Amicus Curiae Supporting Neither Party at 17-21, *Phillips*, 415 F.3d 1303, No. 03-1269; Brief for Federal Circuit Bar Association as Amicus Curiae at 7-9, *Phillips*, 415 F.3d 1303, No. 03-1269; Cheryl Lee Johnson, *The False Premise and Promises of Markman’s Decision to Task Judges with Claim Construction and the Judicial Scorecard*, 837 PLI/PAT 9, 67 (2005); Kathleen M. O’Malley, Patti Saris & Ronald H. Whyte, *A Panel Discussion: Claim Construction from the Perspective*

novo standard of review of patent claim construction based upon the Federal Circuit's own law versus fact analysis in its *Markman* decision.

It appears that the Federal Circuit has continued to follow its own analysis in the application of the Seventh Amendment in patent claim construction cases, rather than that of the Supreme Court, for reasons of expediency. In the area of claim construction, the Federal Circuit placed a premium on certainty and uniformity in its *Markman* analysis.¹²⁶

While the Supreme Court did not employ the law versus fact analysis utilized by the Federal Circuit in the latter's *Markman* analysis, the Supreme Court did endorse the goal of uniformity in the area of claim construction.¹²⁷ In fact, the trend towards enforcing certainty and uniformity in patent law has been the subject of much attention and has been referred to as creating a "cultural push within patent circles."¹²⁸ The Federal Circuit has apparently decided that by foregoing a principled and rigorous analysis under the Seventh Amendment, it can place the construction of patent claims under its control. By treating claim construction as purely an issue of law without any associated questions of fact, the Federal Circuit not only eliminated the jury, a "brilliant idea" in the words of a Federal Circuit judge,¹²⁹ but also guaranteed itself a de novo review of the lower court's claim construction. Federal Circuit Judge Mayer issued a warning in his separate opinion in the *Markman* case,¹³⁰ about the

of the District Judge, 54 Case W. Res. L. Rev. 671, 679 (2004) (Judge Saris voiced the opinion that there should be more deference to the trial judge in claim construction).

126. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978-79 (Fed. Cir. 1995). In the Federal Circuit's *Markman* decision, the majority notes that competitors need to "be able to ascertain to a reasonable degree the scope of the patentee's right to exclude," (*id.* at 978) and that patentees are protected by arriving at a "true and consistent scope of the claims." (*id.* at 979).

127. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390-91 (1996).

128. Craig Allen Nard, *Legal Forms and the Common Law of Patents*, 90 B.U. L. Rev. 51, 84 (2010).

129. In a keynote address, Judge Plager, who was one of the majority in the Federal Circuit's en banc decision in *Markman*, referred to the expedient outcome sought by the Federal Circuit in dealing with the issue of claim construction: "So in the *Markman* case we came up with the brilliant idea of taking claim construction from the jury and giving it to the trial judges, whose articulated understandings we would then be able to review." Hon. S. Jay Plager, Keynote Address at the University of North Carolina School of Law Symposium on Frontiers of Empirical Patent Law Scholarship, (Oct. 24, 2008), available at <http://www.ca9.uscourts.gov/images/stories/announcements/2008/JudgePlagerSpeech10.24.2008.pdf> (cited in Harold C. Wegner, Note, *Claim Construction: A Federal Circuit Judge Provides Useful Insights* (2008)). Judge Plager went on to acknowledge problems with high claim construction reversal rates on appeal. *Id.*

130. *Markman*, 52 F.3d at 989-98 (Mayer, C.J., concurring in the judgment but criticizing the majority holding that claim construction is a matter of law exclusively for the court).

Federal Circuit's "hellbent" campaign, despite precedent,¹³¹ to eliminate the jury from patent cases, and the court's "quest to free patent litigation from the 'unpredictability' of jury verdicts, and generalist judges."¹³² Judge Mayer predicted that the course set by the Federal Circuit "portends turbulence and cynicism in patent litigation."¹³³

Since the Supreme Court issued its *Markman* decision, the Federal Circuit has expressly and repeatedly stated the position that claim construction should be considered purely an issue of law without any factual component in the context of supporting a de novo standard of appellate review of claim construction.¹³⁴ The standard of appellate review of claim construction is an issue generally regarded as one of procedure. However, the ripple effect of the position repeatedly endorsed by the Federal Circuit, that claim construction is purely an issue of law, has also invaded the Federal Circuit's treatment of substantive law in general in the area of claim construction.

*C. Confusion in the Substantive Law of Claim Construction
Resulting from the Federal Circuit's Flawed Approach to
Seventh Amendment Issues*

"Contrariwise," continued Tweedledee,
"if it was so, it might be;
and if it were so, it would be;
but as it isn't, it ain't."

— Alice Through the Looking Glass, Lewis Carroll, Chapter 4

131. *Id.* at 990 n.2.

132. *Id.* at 989.

133. *Id.*

134. See, e.g., *Solvay S.A. v. Honeywell Int'l, Inc.*, 622 F.3d 1367, 1379 (Fed. Cir. 2010); *Spine Solutions, Inc. v. Medtronic Sofamar Danek USA, Inc.*, 620 F.3d 1305, 1314 (Fed. Cir. 2010); *Ring Plus, Inc. v. Cingular Wireless Corp.*, 614 F.3d 1354, 1363 (Fed. Cir. 2010), *reh'g and reh'g en banc denied* (Oct. 7, 2010); *Enovsys LLC v. Nextel Communications, Inc.*, 614 F.3d 1333, 1341 (Fed. Cir. 2010), *reh'g and reh'g en banc denied* (Oct. 8, 2010). See also Herlihy, *supra* note 26, at 474-75, 507 ("While there is growing support among the judges on the Federal Circuit to reconsider the de novo standard of appellate review set forth in the *Cybor* case, which is grounded in the Federal Circuit's own analysis in its *Markman* decision, the Federal Circuit has continued to adhere to *Cybor*, and the Supreme Court has denied a number of petitions for certiorari on the issue of the standard of appellate review for patent claim construction.").

A great deal of “mischief”¹³⁵ has resulted from the Federal Circuit’s convenient fiction, originally adopted to circumvent the Seventh Amendment, that claim construction is purely an issue of law without any factual underpinnings.

1. The Use of Dictionaries

The Federal Circuit’s expedient position that claim construction is purely legal has created undue pressure for the court to develop a universal formula, buttressed by specific rules, for arriving at the proper interpretation of patent claims.¹³⁶ After all, if claim construction *were* purely an issue of law, then claim construction should be amenable to an orderly analysis by rules.¹³⁷ This pressure, born of the ill-conceived view that there are no underlying facts involved in claim construction, has led to an unfortunate amount of confusion and inconsistency in the substantive law of claim construction. The development of the law related to the use of dictionary definitions in claim construction provides one example of the unfortunate effects of this pressure.

Shortly after the *Markman* decisions of the Federal Circuit and the Supreme Court were issued, the Federal Circuit issued an opinion in *Vitronics Corp. v. Conceptronic, Inc.*,¹³⁸ in which it set forth a hierarchy of sources to be used by judges in construing patent claims. In the *Vitronics* case, a panel of the Federal Circuit divided these sources into two major categories: intrinsic evidence, consisting of the words of the patent claims, the patent specification and the prosecution history of the patent;¹³⁹ and extrinsic evidence, consisting of evidence that is “external to the patent and file history,” such as expert and inventor testimony, dictionaries, and technical treatises and

135. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330-35 (Fed. Cir. 2005) (en banc) (Mayer, J., joined by Newman, J., dissenting) (In his dissent criticizing the Federal Circuit’s position that claim construction is purely a matter of law without any factual component Judge Mayer said that “Eloquent words can mask much mischief”).

136. *Markman*, 52 F.3d 967, 979 (Fed. Cir. 1995) (In its *Markman* decision, the Federal Circuit majority spoke of the benefits to both patentees and their competitors of arriving at “the true and consistent scope of the claims.” The Federal Circuit cited the desirability of having “a judge, trained in the law” as the party to “analyze the text of the patent and its associated public record and apply the *established rules of construction*” in order to achieve this goal (emphasis added)).

137. See Craig Allen Nard, *Legal Forms and Common Law of Patents*, 90 B.U. L. Rev. 51, 76-84 (2010) (Discussing rules versus standards in patent law, Nard expresses a preference for rules in the area of claim construction in which the value of certainty is stressed but notes the uncertainty inherent in claim interpretation).

138. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996).

139. *Id.* at 1582-84.

articles.¹⁴⁰ The *Vitronics* court made it clear that intrinsic evidence is favored over extrinsic evidence in construing claims for a number of reasons. Intrinsic evidence embraces any special meaning contemporaneously given to claim language by the inventor.¹⁴¹ It encompasses the written description of the invention,¹⁴² and includes any “express representations” made by the patent applicant during patent prosecution regarding the scope of the claims.¹⁴³ Perhaps most importantly, it forms the public record of the patent.¹⁴⁴

According to the court in *Vitronics*, in most cases the intrinsic evidence is sufficient to resolve any ambiguities in claim language.¹⁴⁵ As a result, extrinsic evidence should only be relied upon by a judge in construing claims in the uncommon situation in which the intrinsic record does not resolve an ambiguity in a disputed claim term.¹⁴⁶ In no event, according to the *Vitronics* court, may extrinsic evidence be used to vary or contradict the claim language or the express or implied definition of claim terms in the specification or prosecution history.¹⁴⁷

While the Federal Circuit’s opinion in the *Vitronics* case discussed the relative importance of various sources to be utilized in claim construction, it did not enunciate a sequential series of steps to be undertaken and rules to be applied at each stage in order to arrive at the proper construction of a patent claim.¹⁴⁸ However, a line of cases emerged after *Vitronics* that attempted to set forth just such a methodology, relying heavily upon the use of dictionaries in claim construction.¹⁴⁹

In the years immediately following the issuance of the *Markman*

140. *Id.*

141. A patentee may be his or her own lexicographer provided that the special meaning is stated in or apparent from the patent specification or prosecution history. *Id.* at 1582.

142. *Id.*

143. *Id.*

144. *Id.* at 1583. (“The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee’s claim, a record on which the public is entitled to rely.”).

145. *Id.*

146. *Id.*

147. *Id.* at 1583-85.

148. A careful reading of the *Vitronics* case reveals that the court distinguished between consulting various types of intrinsic and extrinsic evidence and relying upon such evidence. The court clearly indicated that it was proper for a judge to consult both types of evidence. *Id.* at 1584 (“Moreover, even if the judge *permissibly* decided to hear all the possible evidence before construing the claim”) (emphasis added.) On the other hand, the court indicated that in some instances the extrinsic evidence should be given no weight or should not be relied upon in construing the claims. *Id.*

149. See, e.g., *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002); *Novartis Pharm. Corp. v. Eon Labs Mfg.*, 363 F.3d 1306 (Fed. Cir. 2004).

and the *Vitronics* cases, the Federal Circuit was not consistent in its approach to claim construction. Depending upon the judges making up any particular panel, the overall approach to claim construction varied.¹⁵⁰ The approaches taken have been categorized by different scholars, using distinctions such as “hypertextualism” versus “pragmatic textualism,”¹⁵¹ and “procedural” versus “holistic.”¹⁵² It was within this context that the line of cases placing particular emphasis on the use of dictionaries developed.

While the Federal Circuit had pointed out in *Vitronics* that dictionaries are “worthy of special note” as extrinsic resources which judges can consult at any time and rely upon in appropriate circumstances,¹⁵³ the line of cases emphasizing dictionaries eventually elevated dictionaries from a category of extrinsic evidence to the starting point for claim construction.¹⁵⁴ The leading case in this line, *Texas Digital Systems, Inc. v. Telegenix, Inc.*,¹⁵⁵ extolled the virtues of dictionaries as “objective,” “publicly available,” and “reliable” sources concerning the “established meanings” of claim terms, that provide “unbiased reflections of common understanding,” untainted by post patent filing motives, such as those present in litigation.¹⁵⁶ The court in the *Texas Digital* case applied a “presumption in favor of a dictionary definition” in claim construction, which could be rebutted by an examination of the intrinsic record to determine if the patentee had “set forth an explicit

150. R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. Pa. L. Rev. 1105, 1161 (2004).

151. Craig Allen Nard, *A Theory of Claim Interpretation*, 14 Harv. J.L. & Tech. 1, 4-6 (2000). By 2000, Nard categorized the prominent approach by the Federal Circuit as “hypertextualism,” a “highly formalistic approach” that emphasizes “textual fidelity and internal textual coherence” in intrinsic sources with little emphasis on extrinsic evidence. *Id.* at 5. Nard categorized the competing approach as “pragmatic textualism,” which emphasizes both internal coherence and extrinsic context. *Id.* at 6.

152. Wagner & Petherbridge, *supra* note 150, at 1133-34. By 2004, Wagner and Petherbridge categorized the predominant approach as “procedural” (*id.* at 1170), a hierarchical approach favoring the ordinary meaning of claim language and frequently relying upon dictionaries. *Id.* at 1133. They categorize the alternate approach as “holistic,” a “free form approach” that seeks meaning based on the “particular circumstances.” *Id.* at 1134.

153. *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1584 n.6 (Fed. Cir. 1996) (noting that judges “may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents”).

154. See, e.g., *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1203 (Fed. Cir. 2002) (referring to dictionaries and stating that “categorizing them as ‘extrinsic evidence’ or even a ‘special form of extrinsic evidence’ is misplaced and does not inform the analysis” (*Id.* at 1203)); *Novartis Pharm. Corp.* at 1308 (noting that “under our precedent, we begin our claim construction analysis with an examination of general purpose dictionary definitions”).

155. *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002).

156. *Id.* at 1203.

definition of the term different from its ordinary meaning,” or had “disavowed or disclaimed” any of the ordinary meaning of the claim term.¹⁵⁷ The court also noted in *Texas Digital* that referring to dictionaries had an advantage over any approach that began with consulting the written description in the patent specification and the prosecution history, since the latter “invites a violation” of Federal Circuit precedent that counsels against “importing limitations into the claims.”¹⁵⁸

The line of “dictionary” cases had the perceived advantage of providing a more orderly formula for claim construction than other approaches, such as the “holistic” or “pragmatic textualism” cases.¹⁵⁹ The “dictionary” cases were therefore compatible with the fiction that claim construction is purely an issue of law and could be dealt with under a rules based approach. However, the methodology that these cases espoused was contrary to long-established principles concerning the importance of the public record associated with patents. The public record of a patent, consisting of the patent claims, the specification and the prosecution history, had long been held to provide public notice of patent rights.¹⁶⁰

The methodology set forth in the “dictionary” cases was ultimately discredited by the Federal Circuit sitting en banc in the *Phillips v. AWH Corp.*¹⁶¹ case. In *Phillips*, the Federal Circuit stressed the importance of the specification in claim interpretation,¹⁶² reemphasizing its statement in *Vitronics* that the specification is “the single best guide to the meaning of a disputed term.”¹⁶³ The court in *Phillips* also pointed out the importance of the prosecution history.¹⁶⁴ In discussing claim language, the court repeatedly emphasized that it is the ordinary and customary meaning of claim terms from the vantage point of “a person of ordinary skill in the art” that is important.¹⁶⁵ The court rejected the methodology in the “dictionary” line of cases on the basis that it placed too much reliance on an extrinsic source, a dictionary definition, and too little emphasis on the

157. *Id.* at 1204 (emphasis added).

158. *Id.* at 1204.

159. See Wagner & Petherbridge, *supra* note 150, at 1134; Nard, *supra* note 151, at 6.

160. See, e.g., *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996); *Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319 (Fed. Cir. 2005) (en banc).

161. *Phillips*, 415 F.3d 1303.

162. *Id.* at 1315-17.

163. *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

164. *Id.* at 1317.

165. *Id.* at 1312-16, 1318-19.

specification and prosecution history.¹⁶⁶ Stating that there is “no magic formula or catechism” for claim construction, the *Phillips* court confirmed the general guidelines set forth in the *Vitronics* case, and expressly stated that a judge need not consult evidence in any particular order.¹⁶⁷

Although the Federal Circuit has rejected the rigid approach set forth in the dictionary cases, the pressure to come up with a highly formalized, rules-based methodology for claim construction remains, largely as a result of the Federal Circuit’s fiction that claim construction is purely an issue of law. This pressure will create further confusion and tension in the substantive law of claim construction until the Federal Circuit dissipates it by acknowledging the factual underpinnings of claim construction.

2. The Use of Expert Testimony and Expert Evidence

The Federal Circuit’s convenient fiction that claim construction is purely an issue of law has also created problems for judges in the area of expert testimony and other forms of expert evidence.

The Federal Circuit’s *Markman* decision attempted to rationalize the usefulness of expert testimony and expert evidence in claim construction while denying that such evidence pertains to issues of fact involved in the construction of the words of patent claims themselves. On one hand, the majority opinion in *Markman* referred to the usefulness of expert testimony and other extrinsic evidence to explain “the meaning of technical terms, and terms of art that appear in the patent and file history,” quoting and citing Supreme Court precedent in support of its statements.¹⁶⁸ On the other hand, the court stated:

Through this process of construing claims by, among other things, using certain extrinsic evidence that the court finds helpful and rejecting other evidence as unhelpful, and resolving disputes en route to pronouncing the meaning of claim language as a matter of law based on the patent documents themselves, the court is *not* crediting certain evidence over other evidence or making factual

166. *Id.* at 1320-22.

167. *Id.* at 1324.

168. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980-81 (Fed. Cir. 1995). Among other cases, the Federal Circuit majority cited a Supreme Court case in which a patentee’s testimony was relied upon in claim construction as “the ‘clearest exposition of the significance which the terms employed in the claims had for those skilled in the art.’” *Id.* at 980 (quoting *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 233 (1942)).

evidentiary findings.¹⁶⁹

The Federal Circuit downplayed the existence of ambiguity in patent language,¹⁷⁰ stressing the use of expert testimony for general background purposes in most cases rather than for claim construction purposes: “[i]t is not ambiguity in the document that creates the need for extrinsic evidence but rather unfamiliarity of the court with the terminology of the art to which the patent is addressed.”¹⁷¹

The Federal Circuit cases following *Markman* have also continued the fiction that expert testimony and evidence used in claim construction do not relate to factual issues of claim interpretation. In *Vitronics*, the Federal Circuit again acknowledged that expert testimony could be consulted in claim construction if the intrinsic record were ambiguous, provided that the expert testimony was not used to “vary or contradict the claim language.”¹⁷² However, the *Vitronics* court also stressed the difference between utilizing expert testimony to understand the pertinent technology in general rather than to construe a claim term,¹⁷³ a difference that can sometimes be illusive at best. Subsequent Federal Circuit cases have discussed a number of uses for expert testimony and expert evidence, giving top billing to those uses that supposedly fall short of actual reliance upon the expert testimony or expert evidence to ascertain the meaning of claim language.¹⁷⁴

Since issuing its *Markman* decision, the Federal Circuit has consistently discussed three principle uses for expert testimony and evidence. First, the trial judge may consult extrinsic technical evidence to obtain background information on the pertinent

169. *Markman*, 52 F.3d at 981 (emphasis in original).

170. *Id.* at 986 (majority cited the disclosure requirements under the patent statutes to support its statement that “ideally there should be no ‘ambiguity’ in claim language to one of ordinary skill in the art.”). *Id.* (majority also cited the review of patents by patent examiners and stated that “[i]f the patent’s claims are sufficiently unambiguous for the PTO, there should exist no factual ambiguity when those same claims are later construed by a court of law in an infringement action.”).

171. *Id.*

172. *Vitronics Corp v. Conceptronic, Inc.*, 90 F.3d 1576, 1583-84 (Fed. Cir. 1996).

173. *Id.* at 1585 (“But testimony on the *technology* is far different from other expert testimony, whether it be of an attorney, a technical expert, or the inventor, on the *proper construction* of a disputed claim term . . .”) (emphasis in original).

174. See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) (discussing the use of expert testimony for technical background, for an understanding of how an invention works, to ensure that the court’s understanding of the technical aspects of the patent comports with that of a person having ordinary skill in the art, and finally mentioning its use as support for construing a particular term); *Pitney Bowes, Inc. v. Hewlett Packard*, 182 F.3d 1303, 1309 (Fed. Cir. 2005); *Serio-US Industries, Inc. v. Plastic Recovery Technologies Corp.*, 459 F.3d 1311, 1319 (Fed. Cir. 2006).

technology in general and the invention in particular.¹⁷⁵ Second, the trial judge may consult extrinsic technical evidence to confirm that the construction of a term of art in the claim that the trial judge is leaning towards based upon the intrinsic record is consistent with its meaning to those of skill in the pertinent art.¹⁷⁶ Third, the trial court may, in appropriate circumstances, rely on expert technical evidence to construe a term of art in the claim when the intrinsic record is insufficient or ambiguous.¹⁷⁷ The Federal Circuit has consistently deemphasized the use of expert testimony and evidence to interpret the meaning of a term of art in a patent claim, since this scenario is the most difficult to justify in terms of the fiction that claim construction is purely legal.

As previously discussed, the Federal Circuit's majority analysis in *Markman* is not without critics on the Federal Circuit. In her dissent in *Markman*, Judge Newman decried the position that there are no underlying facts involved in construing terms of art, stating that "the meaning and scope of disputed technologic and other terms of art in particular usage are classic questions of fact."¹⁷⁸ In *Phillips*, Judge Mayer stated that such disputed issues in claim construction are "inherently factual."¹⁷⁹

The tortured state of the law regarding the use of expert testimony and expert evidence in claim construction, coupled with denials that such evidence pertains to issues of fact involved in the construction of the words of patent claims themselves, has created an untenable situation for trial judges. There is an incentive for trial judges to employ subterfuge, relying on technical expert testimony to resolve factual issues involved in claim construction but at the same time stating in opinions that the expert testimony was used for purposes of general background information. In any event, trial judges are aware that they often need to use expert testimony to define a term of art, and that in doing so they are deciding an issue of

175. *Vitronics*, 90 F.3d at 1584; *Phillips*, 415 F.3d at 1318.

176. See *Pitney Bowes, Inc.*, 182 F.3d at 1309 ("Thus, under *Vitronics*, it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field."); see also *Phillips*, 415 F.3d at 1318.

177. See *Vitronics Corporation*, 90 F.3d at 1584 ("No doubt there will be instances in which intrinsic evidence is insufficient to enable the court to determine the meaning of the asserted claims, and in those instances, extrinsic evidence . . . may also properly be relied on to understand the technology and to construe the claims.") (emphasis added).

178. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 999 (Fed. Cir. 1995) (Newman, J. dissenting).

179. *Phillips*, 415 F.3d at 1332 (Mayer, J., joined by Newman, J., dissenting).

fact for which they will not receive deference on appeal.¹⁸⁰

The confusion in this area of the law will not be corrected until the issue of the true nature of claim construction is resolved, and the existence of underlying factual issues is acknowledged. Moreover, the problems are a direct result of the manner in which the Federal Circuit addressed the Seventh Amendment issue in its *Markman* analysis. The Supreme Court's Seventh Amendment analysis in its *Markman* decision does not create these same problems. Judges can decide underlying questions of fact in any "mongrel practice" that is determined to fall within their purview under the Seventh Amendment.

3. The Perspective of One of Ordinary Skill in the Art

Perhaps the most fundamental tension that has been created as a result of the Federal Circuit's *Markman* analysis exists between the Federal Circuit's Seventh Amendment inspired fiction that claim construction is purely an issue of law and the role of the hypothetical person of ordinary skill in the pertinent art. While it has long been settled in patent law that patent claims should be interpreted from the perspective of one of ordinary skill in the pertinent art,¹⁸¹ the Federal Circuit's position on the nature of claim construction is at odds with this basic tenet of patent law.

Patents are issued pursuant to the constitutional grant of authority to Congress "[t]o promote the Progress of Science and useful Arts by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."¹⁸² Patents extend intellectual property rights for inventions. As the Federal Circuit has therefore noted: "[i]ndeed, a patent is both a technical and a legal document."¹⁸³

Since patents deal with technical subject matter and patent claims are to be construed from the point of view of a hypothetical

180. See Kathleen M. O'Malley, Patti Saris & Ronald H. Whyte, *A Panel Discussion: Claim Construction from the Perspective of the District Judge*, 54 CASE W. RES. L. REV. 671, 679-80 (2004) (discussing factual inquiries underlying claim construction that are subjected to de novo review on appeal, such as how to define one of ordinary skill in a particular art and determine that person's understanding of a claim term at the relevant time).

181. See *Phillips*, 415 F.3d at 1313 ("We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."); see also *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed. Cir. 1999) (A judge must interpret "the technical aspects of the document, and indeed its overall meaning, from the vantage point of one skilled in the art.").

182. U.S. Const. art. I, § 8, cl. 8.

183. *Pitney Bowes, Inc.*, 182 F.3d at 1309.

person of ordinary skill in the pertinent art, it is not surprising that the Federal Circuit has consistently stated that extrinsic evidence in the form of technical dictionaries, expert testimony, technical treatises and articles, prior art references, and inventor testimony may be used by the trial court, in appropriate circumstances and in an appropriate manner, in the process of claim construction.¹⁸⁴ The Federal Circuit has acknowledged that these extrinsic sources are important because “the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent” and because “patentees frequently use terms idiosyncratically.”¹⁸⁵ Nevertheless, as previously discussed, the Federal Circuit has downplayed reliance on technical extrinsic evidence as the basis for the interpretation of technical terms of art in a claim, thereby creating tension with the stated goal of interpreting claims from the vantage point of one of ordinary skill in the pertinent art.¹⁸⁶

This tension has been apparent in the Federal Circuit decisions starting with the *Markman* decision itself. In its *Markman* opinion the Federal Circuit emphasized that in construing claim terms “the focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean.”¹⁸⁷ While the Federal Circuit has continued to endorse the importance of the hypothetical person of ordinary skill in the pertinent art in construing claims, it has also continued to try to prop up its fiction that there are no underlying questions of fact involved in claim construction by stating that instances in which the intrinsic record is

184. See, e.g., *Vitronics Corp v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996) (The court discusses the use of expert testimony, inventor testimony, dictionaries, technical treatises and articles, and prior art. With respect to prior art, the court stated that “[a]s compared to expert testimony, which often only indicates what a particular expert believes a term means, prior art references may also be more indicative of what all those skilled in the art generally believe a certain term means.”); *Phillips*, 415 F.3d at 1314, 1318 (discussing in general the use of “extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art,” as well as discussing in particular technical dictionaries and expert testimony); *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1555 (Fed. Cir. 1997) (“[T]he testimony of one skilled in the art about the meaning of claim terms at the time of the invention will almost always qualify as relevant evidence.”). It is important to note that the important issues are not related to the admissibility of the technical evidence, but to the use made of the technical evidence. *Pitney Bowes*, 182 F.3d at 1308 n.2 (“*Vitronics*, however, did not decide under what circumstances expert testimony should be admitted or excluded, but merely concerns whether and under what circumstances courts can rely on already admitted extrinsic evidence as dispositive in their claim constructions.”).

185. *Phillips*, 415 F.3d at 1314.

186. See, e.g., *Nard*, *supra* note 151, at 82 (Nard points out the contradiction in an approach that purports to construe claim language from the perspective of one of ordinary skill in the pertinent art while at the same time “eschew[ing] the use of extrinsic evidence, thus distancing itself from the very industry its ultimate interpretation will most directly affect.”).

187. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995).

insufficient to construe the claims “will rarely, if ever, occur.”¹⁸⁸ This certainly contradicts the reality of many patent disputes. As Judge Mayer observed in his dissent in *Phillips*, the meaning of disputed claim terms is “hotly contested by the parties, not by resort to case law as one would expect for legal issues, but based on testimony and documentary evidence.”¹⁸⁹

The Federal Circuit’s current position that claim construction is purely legal has led to the recent suggestion in the academic literature that claims should be interpreted from the perspective of a patent attorney rather than from one of ordinary skill in the relevant art.¹⁹⁰ I believe the better course is to correct the Federal Circuit’s erroneous persistence in perpetuating its own Seventh Amendment analysis in its *Markman* decision rather than the analysis set forth by the Supreme Court. The Federal Circuit needs to acknowledge that there are underlying fact issues involved in claim construction that relate to the meaning of terms of art from the perspective of one of ordinary skill in the art, and embrace the “mongrel practice” view of the Supreme Court. Once that occurs, the important position of the hypothetical person of ordinary skill in the art will be back on a firm platform.

II. SEVENTH AMENDMENT DECISIONS AND THE DOCTRINE OF EQUIVALENTS

A. *The Federal Circuit’s Infringement Approach to the Doctrine of Equivalents as Purely an Issue of Fact*

Not only has the Federal Circuit’s flawed approach to Seventh Amendment issues led to problems in the area of claim construction, but the approach has also adversely impacted the substantive law related to the doctrine of equivalents. The doctrine of equivalents is an area of the law, like claim construction, that is related to claim scope. Under the doctrine of equivalents, however, a patent may be enforced beyond the literal reach of its claims as properly construed.¹⁹¹ The doctrine of equivalents has been applied by the courts for over a century although it is not explicitly covered in the

188. See *Vitronics*, 90 F.3d at 1583-85.

189. *Phillips*, 415 F.3d at 1332 (Mayer, J., joined by Newman, J., dissenting).

190. John M. Golden, *Construing Patent Claims According To Their Interpretive Community: A Call For An Attorney-Plus-Artisan Perspective*, 21 HARV. J.L. & TECH. 321, 327 (2008).

191. See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997); *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 608-09 (1950).

patent statutes.¹⁹² Its theoretical underpinnings have been a major source of controversy in patent law.¹⁹³

In *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*,¹⁹⁴ the Federal Circuit confronted en banc the issue of whether a judge or jury should determine infringement under the doctrine of equivalents.¹⁹⁵ The issue was raised in the jury case as a result of an argument by the defendant that infringement under the doctrine of equivalents presented an equitable issue and therefore should be determined by the judge.¹⁹⁶ While the Supreme Court in its subsequent *Markman* decision¹⁹⁷ clearly approached the question of whether a jury should be involved in construing a term of art in a patent claim, an issue related to claim scope, as a Seventh Amendment issue,¹⁹⁸ the majority of the Federal Circuit in *Hilton Davis* followed the course it had set in its prior *Markman* decision and avoided an in-depth Seventh Amendment analysis. In fact, the Federal Circuit majority in *Hilton Davis* completely ignored the Seventh Amendment. While the Federal Circuit majority in *Markman* had briefly discussed the Seventh Amendment in rebuttal to the dissenting and one of the concurring opinions in that case,¹⁹⁹ there is no mention

192. See *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1525 (Fed. Cir. 1995), *rev'd on other grounds*, 520 U.S. 17 (1997) (The Federal Circuit majority acknowledges that there is no "general remedy for infringement under the doctrine of equivalents" expressly provided in the patent statutes, but notes that the doctrine has been applied by the Supreme Court for a century in "decisions issued under a stable statutory regime.").

193. See, e.g., *Meurer & Nard*, *supra* note 10.

194. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. 1995). The *Hilton Davis* case involved an issue of infringement under the doctrine of equivalents of a patent related to an ultrafiltration process for purifying dyes. *Id.* at 1515. The broad independent claim of the patent set forth parameters for the pore diameter of the membrane for the ultrafiltration process, and set forth the range of pH values (measuring the acidity or alkalinity) and the pressures for the process. *Id.* Because the defendant did not fall within the stated ranges of pH values, and also sometimes operated outside the claimed pressure range, the sole theory of infringement raised was the doctrine of equivalents. *Id.* at 1516; *Warner-Jenkinson*, 520 U.S. at 23. The limitation in the claim relating to the pH range ("at a pH from approximately 6.0 to 9.0") was added to the claim during prosecution to distinguish the invention claimed from the invention in a previously issued patent. *Hilton Davis Chem.*, 62 F.3d at 1515-16.

195. *Id.* at 1516. The Federal Circuit took the case en banc to decide three specific issues relating to: (1) the specific test for determining infringement under the doctrine of equivalents, (2) whether a judge or jury should decide the issue of infringement under the doctrine of equivalents, and (3) whether application of the doctrine of equivalents is discretionary. *Id.* at 1516 n.1, 1516. The en banc decision was issued per curiam, and there was one concurring opinion and three dissenting opinions. *Id.* at 1514. The issue of validity of the patent was assigned to the panel that originally heard the appeal. *Id.* at 1515 n.1.

196. *Warner-Jenkinson*, 520 U.S. at 23.

197. The Supreme Court's *Markman* decision was issued on April 23, 1996 (*Markman v. Westview Instruments, Inc.*, 517 U.S. 37), and the Federal Circuit's decision in *Hilton Davis* was issued on August 8, 1995 (*Hilton Davis Chem.*, 62 F.3d at 1512).

198. See *supra* note 38 and accompanying text.

199. See *supra* notes 94-98 and accompanying text.

whatsoever of the Seventh Amendment anywhere in the majority en banc decision in *Hilton Davis*.²⁰⁰ Nor is there any application of the historical approach favored by the Supreme Court for Seventh Amendment issues.²⁰¹

The Federal Circuit majority framed the issue relating to whether a judge or jury should apply the doctrine of equivalents as follows:

Is the issue of infringement under the doctrine of equivalents an equitable remedy to be decided by the court, or is it, like literal infringement, an issue of fact to be submitted to the jury in a jury case?²⁰²

The statement of the issue by the majority appears to jumble what should be two separate distinctions: the distinction between law and equity, which is critical to the application of the Seventh Amendment under the historical approach;²⁰³ and the distinction between law and fact, the distinction relied upon by the Federal Circuit in its *Markman* analysis. As a result, it is not surprising that the Federal Circuit's analysis in *Hilton Davis* is no more principled than its Seventh Amendment analysis in its *Markman* decision.

In keeping with the analysis in its *Markman* decision, the majority of the Federal Circuit in *Hilton Davis* relied primarily on a fact versus law distinction in reaching its holding on the Seventh Amendment issue related to the doctrine of equivalents.²⁰⁴ The majority quoted the Supreme Court's landmark case on the doctrine of equivalents, *Graver Tank*, including the statement that "[a] finding of equivalence is a determination of fact."²⁰⁵ While relying upon *Graver Tank* and other cited Supreme Court precedent, the Federal Circuit majority reframed the Supreme Court's statement, defining infringement in general as a factual inquiry: "[i]nfractionment, whether literal or under the doctrine of equivalents, is a question of fact."²⁰⁶ This subtle but significant reframing of the Supreme Court's statement in *Graver Tank* was in line with the flawed approach to Seventh Amendment issues displayed by the Federal Circuit majority

200. *Hilton Davis*, 62 F.3d at 1543 (Plager, J., joined by Archer, C.J., Rich, J. and Lourie, J., dissenting) (The only mention of the Seventh Amendment in the entire case is in one of the dissenting opinions. Judge Plager briefly notes that the majority does not suggest that there is a right to a jury trial under the Seventh Amendment for the doctrine of equivalents).

201. See *supra* note 40 and accompanying text.

202. *Hilton Davis*, 62 F.3d at 1516.

203. See *supra* note 42 and accompanying text.

204. See *Hilton Davis*, 62 F.3d at 1520-22.

205. *Id.* at 1520 (quoting *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 609 (1950)).

206. *Id.*

in its earlier *Markman* decision.

In *Markman*, the Federal Circuit majority expressly framed the issue of whether a jury should be involved in claim construction in terms of distinguishing law from fact, and defined claim construction as purely an issue of law.²⁰⁷ In doing so, the Federal Circuit majority stated that its decision does not deprive parties of the right to have a patent infringement case tried to a jury, but “*merely* holds that part of the infringement inquiry, construing and determining the scope of claims in a patent, is strictly a legal question for the court.”²⁰⁸ In seeking to support this proposition, the majority in *Markman* distinguished claim construction from a determination of infringement: “[t]he patentee’s right to a jury trial on the application of the properly construed claim to the accused device is preserved as it was in 1791.”²⁰⁹

In *Hilton Davis*, the majority also relied primarily upon an analysis distinguishing law from fact, classifying the doctrine of equivalents as an issue of infringement, which it found, in turn, to be an issue of fact.²¹⁰ In this regard, the majority opinions in *Markman* and *Hilton Davis* represent the flip sides of the same coin. While the Federal Circuit majority in *Markman* classified *claim construction* as a *pure issue of law*, in *Hilton Davis* the majority repeatedly classified *infringement* as a *pure issue of fact*, including infringement under the doctrine of equivalents. The Federal Circuit majority has therefore taken a simplified fact versus law approach to Seventh Amendment issues related to claim scope, holding that claim construction goes to the judge as a pure issue of law and all infringement issues go to the jury, in jury cases, as pure issues of fact.

The simplified overall approach that infringement under the doctrine of equivalents is purely an issue of fact, however, is a view that was contested by a number of judges on the Federal Circuit in *Hilton Davis*. Five of a total of twelve judges on the Federal Circuit who participated in the outcome of the case joined in different

207. See *supra* notes 71-72 and accompanying text.

208. *Supra* note 98 and accompanying text.

209. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 984 (Fed. Cir. 1995); see also *id.* at 976 (In criticizing the use of authority in *McGill Inc. v. John Zink Co.*, 736 F.2d 666, 975 (Fed. Cir. 1984), a case which held that claim construction may involve underlying questions of fact, the majority of the Federal Circuit in *Markman* stated that *McGill* relied erroneously upon *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753 (Fed. Cir. 1984). The Federal Circuit majority in *Markman* quoted *Envirotech* for the proposition that claim construction is an issue of law, while a determination of infringement, i.e., whether the accused device is covered by the claims as construed, is a question of fact.).

210. *Hilton Davis*, 62 F.3d at 1520, 1522, 1525.

groupings in support of three separate dissents.²¹¹

Two of the dissenting judges expressly concluded that “a finding of infringement under the doctrine is a mixed question of law and fact,”²¹² recognizing specific issues of law involved in the application of the doctrine of equivalents.²¹³ These two judges specifically disagreed with the Federal Circuit majority’s reliance on the Supreme Court’s statement in *Graver Tank* that “[a] finding of equivalence is a determination of fact” to support a holding in *Hilton Davis* that the doctrine of equivalents is solely an issue of fact.²¹⁴ According to these dissenting judges, the Supreme Court statement must be read in context, and the Federal Circuit majority’s use of the quoted language to support its holding “would be a remarkable change from what the law had been.”²¹⁵ The *Graver Tank* case involved the accused infringer’s substitution of an ingredient in a claimed formula for a flux used in an electrical welding process.²¹⁶ Reading the Supreme Court’s statement in context, the two dissenting judges interpreted it to mean that the issue of whether the substitution “constitutes equivalency” is a determination of fact.²¹⁷ The dissenting judges still regarded the determination of the proper scope of the claim under the doctrine of equivalents as an issue of law for the court.²¹⁸

While two of the dissenting judges explicitly disagreed with the majority’s characterization of infringement under the doctrine of equivalents as a purely factual issue, it is also arguable that the remaining dissenting judges implicitly disagreed. The remaining dissenting judges referred to both questions of fact and conclusions of law in discussing the resolution of doctrine of equivalents issues.²¹⁹

211. *Id.* at 1514; *see also* Warner-Jenkinson Co. v. Hilton Davis Co., 520 U.S. 17, 23 (1997).

212. *Hilton Davis* at 1579.

213. *Id.* at 1570-79, 1582-83 (Nies, J., joined by Archer, C.J. dissenting).

214. *Id.* at 1578.

215. *Id.*

216. *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 610 (1950).

217. *Hilton Davis*, 62 F.3d at 1578 (Nies, J., joined by Archer, C.J. dissenting). *See also id.* at 1577 (emphasis added in Supreme Court quotations from *Graver Tank* to support interpretation).

218. *Id.* at 1578.

219. *See id.* at 1543-44 (Plager, J., joined by Archer, C.J., Rich, J. and Lourie, J. dissenting). In setting out the position that the doctrine of equivalents is equitable in its “jurisprudential roots,” Judge Plager refers to a possible alternate solution of having both the judge and jury involved. The judge would determine whether “the differences between the patent claims and the allegedly infringing product are so insubstantial, and the circumstances so sufficiently special, as to warrant making the remedy afforded by the doctrine of equivalents available” and the jury would apply the doctrine if available. *Id.* Judge Plager refers to related “findings of fact and conclusions of law,” in this method, implicitly taking the view that the

Despite the dissents, however, the majority relied heavily upon the view that the doctrine of equivalents should be characterized as purely an issue of fact in reaching its Seventh Amendment holding.²²⁰

Of course, the majority could not fairly reach a determination that a jury should decide the issue of the doctrine of equivalents in a jury case based solely upon a classification of the issue as one of fact. A judge exercising equitable powers may find facts and therefore it does not necessarily follow that an issue should be given to a jury because it is categorized as one of fact, as pointed out in a rather caustic manner in one of the dissents in the case.²²¹ While the majority did not directly acknowledge the point made in the dissent, the majority did very briefly discuss whether application of the doctrine of equivalents is equitable in nature,²²² the issue expressly raised by the defendant.

The majority ran up against an obstacle in the form of precedent in its quest to rely upon the fact versus law distinction and thereby assign what it had categorized as a factual issue to the jury. The majority acknowledged that “[i]n several recent opinions, this court has referred to the doctrine of equivalents as ‘equitable,’”²²³ citing to six of its opinions dating from 1985.²²⁴ The majority, however, made short shrift of its past statements that had referred to the doctrine of equivalents as “equitable,” declaring that the past statements had meant to convey the notion of “general fairness.”

The term ‘equitable’ can have many meanings. The Supreme Court explained in *Graver Tank* that the doctrine prevents the unfairness of depriving the patent owner of effective protection of its invention, . . . thereby achieving a fair or ‘equitable’ result. Thus, in doctrine of equivalents cases, this court’s allusions to equity invoke equity in its broadest sense—equity as general fairness.²²⁵

The majority also summarily dismissed any notion that either the Supreme Court or the Federal Circuit had ever taken the position that the doctrine of equivalents involved “equity in the technical sense.”

application of the doctrine of equivalents is not purely an issue of fact. *Id.* at 1544 (emphasis added).

220. See *supra* note 209 and accompanying text.

221. *Hilton Davis*, at 1541 (Plager, J., joined by Archer, C.J., Rich, J. and Lourie, J. dissenting) (after noting the majority’s statement that infringement under the doctrine of equivalents is a question of fact, Plager points out: “[b]ut the court follows that statement with the conclusion that, since infringement by equivalents is a question of fact it must therefore be a question for a jury, as if equity courts in the course of their work never decide factual issues.”).

222. *Hilton Davis*, 62 F.3d at 1521.

223. *Id.* (footnote omitted).

224. *Id.* at 1521 n.2.

225. *Id.* at 1521 (citing *Graver Tank*, 339 U.S. at 607) (citation omitted).

By referring to the doctrine as a doctrine of fairness, neither the Supreme Court nor this court has invoked the myriad implications of an alternative to legal remedies. In addition, neither the Supreme Court nor this court has invoked equity in the technical sense of a set of principles originating in England to compensate for the historically harsh rules of common law.²²⁶

The majority declared that it was significant that the Supreme Court in *Graver Tank* did not discuss “any of the principles commonly attending the chancellor’s invocation of equitable power,” such as the doctrine of “clean hands,” the balancing of equities, an elevated burden of proof, or an abuse of discretion standard of review.²²⁷ The majority cited Supreme Court cases for the proposition that “every patent owner is entitled to invoke the doctrine of equivalents—a proposition inimical to the hypothesis that the doctrine is equitable.”²²⁸ Finally, the majority stated that in *Graver Tank* the Supreme Court identified its decision in *Winans v. Denmead*,²²⁹ an action at law, as the genesis of the doctrine of equivalents, and that *Graver Tank* “did not impliedly transform a legal basis for recovery into an equitable one.”²³⁰

The Federal Circuit analyzed the issue of whether a judge or jury should determine infringement under the doctrine of equivalents within a larger discussion in the opinion that also addressed the proper test for applying the doctrine of equivalents.²³¹ In addressing the proper test, the Federal Circuit majority commented upon the significance of certain arguably equitable factors that had been identified in the Supreme Court’s decision in *Graver Tank* as relevant to the application of the doctrine of equivalents. In *Graver Tank*, the Supreme Court had stated that “[t]he essence of the doctrine is that one may not practice a fraud on a patent.”²³² Further, the Supreme Court spoke of the doctrine as discouraging the “unscrupulous copyist,”²³³ had used additional judgmental language to describe the infringer under the doctrine of equivalents as a “pirate” engaged in “stealing,”²³⁴ and had spoken approvingly of reliance upon factors

226. *Id.* at 1521.

227. *Id.*

228. *Id.*

229. *Winans v. Denmead*, 56 U.S. (15 How.) 330 (1853).

230. *Hilton Davis*, 62 F.3d at 1521.

231. *Id.* at 1516-21.

232. *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 607 (1950).

233. *Id.* at 607.

234. *Id.* at 607-08.

such as imitation versus independent research.²³⁵

In addressing the *Graver Tank* case, the Federal Circuit majority in *Hilton Davis* discussed its interpretation of the relevance of whether the accused infringer had imitated or copied the claimed invention, designed around it, or engaged in independent research.²³⁶ The Federal Circuit majority explicitly held that the overriding inquiry for the application of the doctrine of equivalents consists of an objective assessment of whether the differences between the claimed invention and the accused product or process are substantial.²³⁷ The majority then set forth the position that copying was relevant to an inquiry into the application of the doctrine of equivalence, not because it shed light on any evil motive of the alleged infringer, but because “copying suggests that the differences between the claimed and accused products or processes—measured objectively—are insubstantial.”²³⁸ Conversely, the majority stated that evidence of “designing around” a patent suggests that the differences between the claimed invention and the accused product or process are substantial: “the fact-finder may infer that the competitor, presumably one of skill in the art, has designed substantial changes into the new product to avoid infringement.”²³⁹ The majority rejected any notion that “bad faith,” “evil intent,” or “culpable conduct” are required for application of the doctrine of equivalents, stating that the Supreme Court applied the doctrine “to prevent ‘fraud on a patent,’ not fraud by the accused infringer.”²⁴⁰

While the majority refused to find that the doctrine of equivalents has any equitable component at all in a technical sense,²⁴¹ a number of judges strongly disagreed with that conclusion.²⁴² Furthermore, the majority’s conclusory and superficial treatment of precedent, summarily equating the past characterization of the doctrine of equivalents as “equitable” with “general fairness,”

235. *Id.* at 612.

236. *See Hilton Davis*, 62 F.3d at 1519-20.

237. *Id.* at 1518.

238. *Id.* at 1519.

239. *Id.* at 1520.

240. *Id.* at 1519 (internal citations omitted) (quoting *Graver Tank & Mfg. Co.*, 339 U.S. at 608).

241. *Hilton Davis*, 62 F.3d at 1523.

242. *See Hilton Davis*, 62 F.3d at 1540-45 (Plager, J., joined by Archer, C.J., Rich, J., and Lourie, J., dissenting); *id.* at 1542 (“The majority’s failure—or refusal—to acknowledge the uniquely equitable nature of the doctrine of equivalents with its built-in constraints leads to a basic error in the opinion”); *see also id.* at 1550 (Lourie, J., joined by Rich, J., and Plager, J., dissenting) (“I consider that the DOE is an equitable remedy for the judge to decide whether to apply, or not to apply”).

prompted one dissenting judge to label the majority's analysis of the issue as "ipse dixit."²⁴³ The same dissenting judge pointed out that in *Graver Tank* the Supreme Court did not discuss the equitable issues of "clean hands," the abuse of discretion standard of review or a balancing of the equities because the issues were not before the Court.²⁴⁴ Nevertheless, the majority dismissed equity²⁴⁵ in its dubious comparison of equity and fact.

In arriving at its holding that in a jury trial the issue of infringement under the doctrine of equivalents should be submitted to the jury,²⁴⁶ the majority in *Hilton Davis* consistently jumbled the distinction between law and equity with the distinction between law and fact, as it had in framing the issue. As an example, in characterizing past references by the Supreme Court to "equity" as general fairness, the Federal Circuit majority stated as follows: "[w]hile recognizing the equity, or fairness, promoted by the doctrine of equivalents, furthermore, the Supreme Court stated unequivocally that application of the doctrine is a question of fact."²⁴⁷ In its holding on the issue, the majority referred to infringement under the doctrine of equivalents as an "issue of fact." The repeated juxtaposition of equity and fact, however, does not provide a sound analysis. As pointed out in one dissent: "[t]o label something a fact issue tells us little about who should decide it."²⁴⁸ Judges routinely decide facts in "traditional equitable matters."²⁴⁹

Overall, the Federal Circuit majority's analysis of the Seventh Amendment issue in *Hilton Davis* is flawed. The majority opinion fails to address the Seventh Amendment. It rejects equity as a basis for the doctrine of equivalents in a superficial manner. It fails to apply the historical approach, confusing the distinction between law and equity with the distinction between law and fact.

The parallels between the Federal Circuit's majority analysis in *Hilton Davis* and its majority analysis in *Markman* are striking. First, in each case the majority avoided the Seventh Amendment. In

243. *Hilton Davis*, 62 F.3d at 1542 (Plager, J., joined by Archer, C.J., Rich, J., and Lourie, J., dissenting).

244. *Id.* Judge Plager also pointed out that *Graver Tank* was a non-jury case, and that the Supreme Court did not need to address law and equity distinctions. *Id.* at 1543.

245. *Hilton Davis*, 62 F.3d at 1523 ("The doctrine of equivalents has no equitable or subjective component.").

246. *Id.* at 1522.

247. *Id.* at 1521.

248. *Hilton Davis*, 62 F.3d at 1543 (Plager, J., joined by Archer, C.J., Rich, J. and Lourie, J. dissenting).

249. *Id.* (referring to "the rights of beneficiaries under trusts, mistake and fraud in contract disputes, [and] domestic relations" as matters in which a judge decides questions of fact).

Markman, the majority oversimplified the issue of claim construction as purely an issue of law in order to avoid an in-depth analysis under the Seventh Amendment. In *Hilton Davis*, the majority ignored the Seventh Amendment altogether, employing a jumbled discussion of equity and fact instead.

Second, in each case the majority essentially relied upon a fact versus law classification. In *Markman*, the majority expressly framed the issue of whether a jury should be involved in claim construction in terms of distinguishing law from fact, and defined claim construction as purely an issue of law. In *Hilton Davis*, the majority relied primarily upon its classification of the doctrine of equivalents as an issue of fact.

Third, in each case the majority overruled or creatively defined its past cases in order to avoid a Seventh Amendment analysis. In *Markman*, the majority overruled holdings and criticized dicta in a “significant line” of its past cases that had taken the position that claim construction includes issues of fact. This was necessary to avoid an in-depth Seventh Amendment analysis. In *Hilton Davis*, the majority defined references to “equity” in its past cases dealing with the doctrine of equivalents, not to mention references to equity by the Supreme Court in doctrine of equivalents cases, as meaning “general fairness.” This sleight of hand was also necessary to avoid a Seventh Amendment analysis.

Unfortunately, the parallels between the two decisions arise as a result of similar flawed analyses of Seventh Amendment issues. The Federal Circuit majority analyses are out of line with Supreme Court Seventh Amendment law.²⁵⁰ It is no surprise, therefore, that the Federal Circuit’s continued reliance on the analyses has resulted in further problems in patent law.²⁵¹

B. The Supreme Court’s Failure to Resolve Seventh Amendment Issues Regarding the Doctrine of Equivalents in Warner-Jenkinson

While the Supreme Court did review the Federal Circuit’s decision in the *Hilton Davis* case, the Court failed to reach the Seventh Amendment issue. In *Warner-Jenkinson Co. v. Hilton Davis*

250. See Herlihy, *supra* note 26, at 493-98 (discussing Supreme Court Seventh Amendment precedent which applies the historical approach, rooted in the distinction between law and equity, rather than an approach based upon a distinction between law and fact).

251. See discussion *infra* Section II.C.

Chem. Co.,²⁵² the Supreme Court reviewed the Federal Circuit's opinion on the issues of the continued viability of the doctrine of equivalents,²⁵³ the manner in which the test for equivalents should be applied,²⁵⁴ and the scope of limitations on the doctrine of equivalents.²⁵⁵ In its unanimous decision, the Supreme Court upheld the continued viability of the doctrine of equivalents.²⁵⁶ With respect to the Seventh Amendment issue raised in the case, however, the Supreme Court expressly declined to decide it, stating as follows:

Because resolution of whether, or how much of, the application of the doctrine of equivalents can be resolved by the court is not necessary for us to answer the question presented, we decline to take it up. The Federal Circuit held that it was for the jury to decide whether the accused process was equivalent to the claimed process. There was ample support in our prior cases for that holding. . . .

Whether, if the issue were squarely presented to us, we would reach a different conclusion than did the Federal Circuit is not a question we need decide today.²⁵⁷

The Supreme Court's failure to review the Seventh Amendment issue in the *Warner-Jenkinson* case was both significant and extremely unfortunate because it has contributed to the adverse impact of the Federal Circuit's Seventh Amendment analyses on the development of substantive patent law. In *Warner-Jenkinson*, the Supreme Court needlessly clouded the Seventh Amendment issue related to the doctrine of equivalents and claim scope by gratuitously offering words of endorsement for the Federal Circuit's decision that the doctrine of equivalents should be applied by the jury, while at the

252. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997).

253. The Supreme Court upheld the doctrine of equivalents as not conflicting with the provisions of the 1952 Patent Act. *Id.* at 25-28.

254. The Court adopted the position, espoused by Judge Nies in her dissenting opinion in the Federal Circuit's *Hilton Davis* decision below, that the doctrine of equivalents should be applied to each element of a patent claim rather than to the claim as a whole. *Id.* at 28-30. The Court also concurred with the Federal Circuit's position that proof of any particular intent is not required for application of the doctrine of equivalents, and held that the doctrine of equivalents should not be limited to equivalents disclosed within the patent. *Id.* at 34-37.

255. The Supreme Court affirmed the doctrine of prosecution history estoppel as a legal limitation on the doctrine of equivalents, but refused to adopt a rule that such an estoppel would eliminate any application of the doctrine of equivalents to an amended claim element without regard for the reason for the amendment. *Id.* at 30-32.

256. *Id.* at 21.

257. *Id.* at 38 (footnote omitted) (emphasis added). The Supreme Court also noted that while the opinions below, and the respondents and the *amici* in briefs gave "considerable attention" to the issue of whether a judge or jury should apply the doctrine of equivalents, "in this Court petitioner makes only passing reference to this issue." *Id.* at 37.

same time expressly reserving judgment on the issue.²⁵⁸

The Supreme Court has consistently afforded too much deference to the Federal Circuit in Seventh Amendment issues in patent cases. In the *Markman* case, while the Supreme Court did not adopt the fact versus law approach employed by the Federal Circuit, it did arguably strain to reach the same ultimate result and thereby affirm the decision of the majority of the Federal Circuit that claim construction is the sole responsibility of the judge, with no room for jury involvement.²⁵⁹ Further, the Supreme Court failed to comment on the flawed fact versus law approach to the Seventh Amendment issue that was employed by the Federal Circuit.

In *Warner-Jenkinson*, the Supreme Court again displayed deference to the Federal Circuit on a Seventh Amendment issue. The Supreme Court endorsed in dicta the result reached by the Federal Circuit, stating: “[n]othing in our recent decision in *Markman* . . . necessitates a different result than that reached by the Federal Circuit.”²⁶⁰ However, the Supreme Court failed to note that in *Markman* it had analyzed the issue of whether a judge or jury should construe patent claims under the Seventh Amendment, while the Federal Circuit majority in *Hilton Davis* had failed to even mention the Seventh Amendment in its analysis of whether a judge or jury should apply the doctrine of equivalents. Furthermore, while the Supreme Court addressed prosecution history estoppel, a legal limitation on the doctrine of equivalents, in its decision in *Warner-Jenkinson*,²⁶¹ it did not comment on the Federal Circuit’s characterization of the doctrine of equivalents as purely factual.

258. *Id.* at 38-39.

259. *See, e.g., Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 380 n.5 (1996) (The Supreme Court refers to “concerns about the accuracy of the summary of the jury instructions,” and “ambiguous references” in rejecting the historical case relied upon by *Markman*: “we cannot infer the existence of an established practice” of having juries construe disputed terms.); *id.* at 381-82 (The Supreme Court refers to inferences and “probability” in finding that judges rather than juries must have been the entity construing patent documents in eighteenth century practice.). Whether the correct result was reached in the Supreme Court’s application of Seventh Amendment law in the *Markman* case, particularly in the Court’s assessment of the eighteenth century precedent cited under the historical approach (*see id.* at 379-84), is an issue that is beyond the scope of this article.

260. *Warner-Jenkinson*, 520 U.S. at 38. The Supreme Court also noted that “[i]ndeed, *Markman* cites with considerable favor, when discussing the role of judge and jury, the seminal *Winans* decision” (*id.* at 38-39), which was relied upon in part by the Federal Circuit in assigning the application of the doctrine of equivalents to the jury. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1521 (Fed. Cir. 1995).

261. *Id.* at 30-34. *See also id.* at 39 note 8 (referring to “various legal limitations on the application of the doctrine of equivalents,” which the Supreme Court states are to be determined by the court).

Instead, the Supreme Court failed to decide the Seventh Amendment issue in *Warner-Jenkinson*, thereby leaving the jumbled analysis of the Federal Circuit intact on that point. It is not surprising that the combination of opinions has led to a ripple effect of confusion in substantive patent law.

*C. Confusion and Tension in the Substantive Law of the
Doctrine of Equivalents Resulting from Seventh Amendment
Decisions*

“Who are you?” said the Caterpillar.

This was not an encouraging opening for a conversation.
Alice replied, rather shyly, “I — I hardly know, sir, just at present —
at least I know who I was when I got up this morning, but I think I
must have been changed several times since then.”

— Alice’s Adventures in Wonderland, Lewis Carroll, Chapter 5

Prior to the Federal Circuit’s pronouncements in the *Hilton Davis* case, the doctrine of equivalents had been repeatedly described as equitable in nature.²⁶² The Federal Circuit’s superficial and expedient recharacterization of the doctrine of equivalents as not being grounded in equity “in the technical sense,”²⁶³ made while facing a Seventh Amendment issue in *Hilton Davis*, combined with the Federal Circuit’s oversimplification of the doctrine of equivalents as purely an issue of fact, has fueled a number of problems in the substantive law regarding the application of the doctrine. The Supreme Court’s failure in *Warner-Jenkinson* to review the Federal Circuit’s analysis of the Seventh Amendment issue, while at the same time lending support to the outcome reached by the Federal Circuit, has exacerbated the problem.

262. See, e.g., *Hilton Davis*, 62 F.3d at 1521 (citing and quoting past Federal Circuit cases that described or referred to the doctrine of equivalents as equitable); Donald R. Dunner & J. Michael Jakes, *The Equitable Doctrine of Equivalents*, 75 J. Pat. & Trademark Off. Soc’y 857, 859 (1993) (taking the position that the doctrine of equivalents began as an equitable doctrine); Meurer & Nard, *supra* note 10, at 1950 (referring to the doctrine of equivalents as having originated as “an equitable doctrine designed to correct unjust copying”).

263. See *supra* note 226 and accompanying text.

1. The Identity Crisis

The Seventh Amendment analysis of the Federal Circuit majority in *Hilton Davis* has contributed to a profound identity crisis regarding the very nature of the doctrine of equivalents. While the Federal Circuit majority dismissed equity as the basis for the doctrine, it did not identify any alternate grounds to support it. As a result, the substantive law regarding the application of the doctrine of equivalents is disjointed and uncertain.²⁶⁴ As Judge Plager stated in his dissent in the *Hilton Davis* case:

If we are to know where we are going with the doctrine of equivalents, we must know whence it came. The court denies that the doctrine has its roots in a court's traditional equity powers, but provides no substitute explanation for its origin. As a result, we are left with two major problems that are not satisfactorily resolved: what are the controlling bounds of the doctrine, and what are the proper respective roles of judge and jury.²⁶⁵

The consistently cited justifications for the modern doctrine of equivalents are set forth in *Graver Tank*. The Supreme Court stated in *Graver Tank* that “[t]he essence of the doctrine is that *one may not practice a fraud on a patent*,”²⁶⁶ and pointed out that “*to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing*.”²⁶⁷ The Supreme Court also cited earlier precedent from the Second Circuit in its *Graver Tank* opinion, stating that the doctrine may be invoked “[t]o temper unsparing logic and prevent an infringer from *stealing the benefit of the invention*.”²⁶⁸ These *Graver Tank* statements explaining the need for the doctrine of equivalents refer to “fraud,” “imitation” and “stealing,” terms that connote reprehensible conduct on the part of the infringer. However,

264. See, e.g., Sarnoff, *supra* note 13, at 1166 (stating that “[t]he Supreme Court has not imposed a standard for determining factual equivalency under the modern doctrine of equivalents,” and noting that in *Warner-Jenkinson* the Supreme Court “refused to select (but did not discourage use of) any of the traditional formulations.”); Matthew C. Phillips, *Taking A Step Beyond Maxwell to Tame the Doctrine of Equivalents*, 11 Fordham Intell. Prop. Media & Ent. L.J. 155, 162 (2000) (referring to the “legal uncertainties” surrounding the doctrine of equivalents); Meurer & Nard, *supra* note 10, at 1950 (referring to the “ill-defined role” of the doctrine of equivalents).

265. *Hilton Davis*, 62 F.3d at 1537 (Plager, S., dissenting).

266. *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 608 (1950) (emphasis added).

267. *Id.* at 607 (emphasis added).

268. *Id.* at 608 (quoting *Royal Typewriter Co. v. Remington Rand*, 168 F.2d 691, 692 (2d Cir. Conn. 1948) (emphasis added)); see also *Hilton Davis*, 62 F.3d at 1536 (Newman, Circuit Judge, concurring) (Judge Newman states that she knows of “no improvement” upon this statement for the invocation of the doctrine of equivalents.).

neither the Federal Circuit nor the Supreme Court criticized or retracted these formulations regarding the doctrine, despite stating, respectively, that "intent is not an element" in applying the doctrine,²⁶⁹ and the "better view" is that "intent plays no role in the application of the doctrine of equivalents."²⁷⁰

In expressly cutting the doctrine of equivalents loose from any perceived requirement that it redress culpable conduct in *Warner-Jenkinson*, the Supreme Court did not deny such a benefit of the doctrine but rather expanded the reach of the doctrine:

To be sure, *Graver Tank* refers to the prevention of copying and piracy when describing the benefits of the doctrine of equivalents. That the doctrine produces such benefits, however, does not mean that its application is limited only to cases where those particular benefits are obtained.²⁷¹

The Supreme Court's position in this regard, coupled with the Federal Circuit's statements denying any equitable component for the doctrine of equivalents or any jurisprudential basis in equity, has resulted in a body of substantive law that is amorphous and has no guiding principle for determining an appropriate application of the doctrine. In particular, there is disagreement among the judges of the Federal Circuit as to the identity and importance of the factors that should be applied in an evaluation under the doctrine of equivalents.

In *Graver Tank*, the Supreme Court referenced a number of factors to be considered in applying the doctrine of equivalents, including: copying and "imitation,"²⁷² "piracy,"²⁷³ whether there were "unimportant and insubstantial changes and substitutions,"²⁷⁴ the status of a patented invention as a "pioneer" or a "secondary invention,"²⁷⁵ the prior art,²⁷⁶ whether persons of skill in the art would have known of the "interchangeability" of an ingredient not mentioned in the patent with one that was included,²⁷⁷ whether the accused product or process was the result of "independent research,"²⁷⁸ as well as, generally, "the particular circumstances of the

269. *Hilton Davis*, 62 F.3d at 1519 and 1520.

270. *Warner-Jenkinson*, 520 U.S. at 36.

271. *Id.* at 34.

272. *Graver Tank*, 339 U.S. at 607, 612.

273. *Id.* at 607.

274. *Id.*

275. *Id.* at 608 (noting that for pioneer and secondary inventions "the area of equivalence may vary").

276. *Id.* at 609.

277. *Id.*

278. *Id.* at 612.

case.”²⁷⁹ In taking the position that certain of these cited factors were not equitable in nature or related to evil intent, the Federal Circuit majority in *Hilton Davis* stated that in applying the doctrine of equivalents the principal focus is whether the differences between the claimed invention and the accused product or process are substantial.²⁸⁰ The Federal Circuit majority then placed copying and “designing around” in subsidiary positions, stating: “copying suggests that the differences between the claimed and accused products or processes—measured objectively—are insubstantial,”²⁸¹ and “designing around” suggests that “the competitor, presumably one of skill in the art, has designed substantial changes into the new product to avoid infringement.”²⁸² However, in *Warner-Jenkinson* the Supreme Court criticized this Federal Circuit explanation, stating that it “leaves much to be desired.”²⁸³ At the same time, the Supreme Court in *Warner-Jenkinson* did not shed any light on the relative importance of the factors previously cited in *Graver Tank*, nor did it provide a basis for determining what other factors might be relevant in considering “the particular circumstances” of a case.²⁸⁴ Rather the Supreme Court generally lent support in *Warner-Jenkinson* to the factors mentioned in *Graver Tank*.²⁸⁵

The Supreme Court, therefore, far from resolving the disagreements among the judges of the Federal Circuit on the proper application of the doctrine of equivalents, a goal which the Supreme Court expressly set out to achieve in its *Warner-Jenkinson* opinion,²⁸⁶ left the disagreements in existence and arguably added to them. One of the dissents in the Federal Circuit’s *Hilton Davis* opinion had expressed the view of three judges that the Federal Circuit majority opinion “misconstrues the meaning of the factors other than the substantiality of the differences.”²⁸⁷ This complaint regarding the meaning of the factors was not addressed by the Supreme Court in

279. *Id.* at 609.

280. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1518 (Fed. Cir. 1995).

281. *Id.* at 1519; *see also supra* notes 237-239 and accompanying text.

282. *Hilton Davis*, 62 F.3d at 1520; *see also supra* notes 237-238, 240 and accompanying text.

283. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 35-36 (1997).

284. *See Hilton Davis*, 62 F.3d at 1547 (Lourie, J., joined by Rich, J. and Plager, J. dissenting) (discussing other factors that he believes should be relevant to a determination under the doctrine of equivalents, including “any behavior of the patentee that impairs the ability of the public to reasonably understand from the claims what is patented,” and whether the patentee knew of the potential non-literal infringement and failed to seek a reissue).

285. *Warner-Jenkinson*, 520 U.S. at 24-25.

286. *Id.* at 21.

287. *Hilton Davis*, 62 F.3d at 1547 (Lourie, J., joined by Rich, J. and Plager, J. dissenting).

Warner-Jenkinson. Rather, the Supreme Court left the specifics of the application of the doctrine of equivalents to the Federal Circuit: “[w]e expect that the Federal Circuit will refine the formulation of the test for equivalence in the orderly course of case-by-case determinations, and we leave such refinement to that court’s sound judgment in this area of its special expertise.”²⁸⁸

The combination of the Federal Circuit’s analysis in *Hilton Davis* and the Supreme Court’s failure to take up the Seventh Amendment issue has caused confusion as far as the proper path to take in making these “refinements” is concerned. The Federal Circuit majority summarily defined away any trace of equity “in the technical sense”²⁸⁹ from its precedent. The Supreme Court failed to confront the distinction between law and equity head-on in a proper Seventh Amendment analysis. As a result, the substantive law regarding the doctrine of equivalents has been left without “controlling bounds,”²⁹⁰ particularly for identifying and prioritizing relevant factors to be taken into account in applying the doctrine. It is time for the Supreme Court to address the Seventh Amendment issue it left unanswered in *Warner-Jenkinson*, and take up the question of whether there is any equitable basis for the doctrine of equivalents, and if not, to identify the controlling basis for the doctrine.

2. Claim Scope and Infringement

The Federal Circuit’s overly simplistic characterization of the doctrine of equivalents as a theory presenting purely factual issues has also led to complications and tension in the substantive law related to the doctrine. This characterization was made in the context of analyzing the Seventh Amendment issue in *Hilton Davis*,²⁹¹ and it has led to confusion in defining the very scope and character of the proper inquiry involved in applying the doctrine of equivalents.

The confusion relates to whether the doctrine of equivalents involves solely a factual determination of equivalency, or whether it is a doctrine that also necessarily involves a legal analysis of claim scope. Simply stated, the issue is whether the doctrine of equivalents should routinely involve two steps: a determination of the relevant permissible scope of protection for the claim, similar to but not the

288. *Warner-Jenkinson*, 520 U.S. at 40.

289. *Hilton Davis*, 62 F.3d at 1521; *see also supra* note 226 and accompanying text.

290. *Hilton Davis*, 62 F.3d at 1537 (Plager, Circuit Judge, with whom Chief Judge Archer and Circuit Judges Rich and Lourie join, dissenting); *see also supra* note 265 and accompanying text.

291. *See supra* notes 210-219 and accompanying text.

same as claim construction, followed by the comparison of the allegedly infringing product or process to the permissible scope of claim protection.

Two years prior to the Federal Circuit's en banc decision in *Hilton Davis*, a panel of the Federal Circuit in *Wilson Sporting Goods v. David Geoffrey & Assoc.*,²⁹² had unanimously endorsed a hypothetical claim analysis in doctrine of equivalents cases. The *Wilson Sporting Goods* case involved a patent related to golf balls with a particular pattern of "dimples" that improve performance by increasing the ball's lift.²⁹³ The only theory of liability at issue was infringement under the doctrine of equivalents.²⁹⁴ Following a jury verdict of infringement, the defendants moved unsuccessfully for judgment notwithstanding the verdict, arguing that the asserted scope of equivalency would impermissibly encompass golf balls that were already in the public domain and thereby improperly "ensnare the prior art."²⁹⁵

In addressing the issue on appeal, a Federal Circuit panel explained that "a patentee should not be able to obtain, under the doctrine of equivalents, coverage which he could not lawfully have obtained from the PTO by literal claims," and therefore, "since prior art always limits what an inventor could have claimed, it limits the range of permissible equivalents of a claim."²⁹⁶ In order to determine whether the prior art limits the range of equivalents relevant to a particular case, the Federal Circuit stated that "it may be helpful to conceptualize the limitation on the scope of equivalents by visualizing a *hypothetical* patent claim, sufficient in scope to *literally* cover the accused product."²⁹⁷ Once the hypothetical claim is defined, a determination must be made as to whether the Patent and Trademark Office (PTO) could have allowed such a claim in light of the prior art.²⁹⁸ If such a claim could not have been issued in light of the prior art, it would not be proper to allow the patentee to obtain that coverage under the doctrine of equivalents in a subsequent infringement suit.²⁹⁹ If such a claim could have been properly issued

292. *Wilson Sporting Goods v. David Geoffrey Assocs.*, 904 F.2d 677 (Fed. Cir. 1990), *overruled in part on other grounds*, *Cardinal Chem. Co. v. Morton Int'l, Inc.*, 508 U.S. 83 (1993).

293. *Id.* at 679.

294. *Id.* at 683.

295. *Id.* at 678, 681-83.

296. *Id.* at 684.

297. *Id.* (emphasis added).

298. *Id.*

299. *Id.*

by the PTO, then application of the doctrine of equivalence is not barred by the prior art.³⁰⁰

The Federal Circuit treated the hypothetical claim analysis as an issue of law in *Wilson Sporting Goods*.³⁰¹ This approach was consistent with the Federal Circuit's precedent at the time, which classified the issue of whether an asserted scope of equivalents should be barred by the prior art as an issue of law to be reviewed under a de novo standard on appeal.³⁰² Since the decision in *Wilson Sporting Goods*, hypothetical claim analysis has been consistently treated as an issue of law.³⁰³ It is an analysis that cannot result in and of itself in a determination of infringement under the doctrine of equivalents. Rather, as set forth in *Wilson Sporting Goods*, a determination may be reached under the hypothetical claim analysis that the range of equivalents asserted is not *barred* as a matter of law.³⁰⁴ If the asserted range of equivalents is not barred, there must be a subsequent finding of equivalency between the claim asserted and the accused product or process in order to establish infringement under the doctrine of equivalents.³⁰⁵

Despite the Federal Circuit's decision in *Wilson Sporting Goods*, setting out in detail a legal analysis to be performed to determine if the range of equivalents asserted in a case under the doctrine of equivalents is permissible as a matter of law, the Federal Circuit majority in *Hilton Davis* stated that the application of the doctrine of equivalents is purely factual. The court did so in order to deal expediently with the Seventh Amendment issue it faced. This involved some sleight of hand, as previously discussed,³⁰⁶ as well as an absence of any reference to *Wilson Sporting Goods* in the majority opinion. Referring to the Supreme Court's statement in *Graver Tank* that "a finding of equivalence is a determination of fact," the Federal Circuit majority in *Hilton Davis* restated the proposition in an unprincipled manner: "*infringement*, whether literal or under the

300. *Id.*

301. *See id.* at 683-85.

302. *See* *Senmed, Inc. v. Richard-Allan Medical Indus.*, 888 F.2d 815, 821 (Fed. Cir. 1989); *see also* *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 870 (Fed. Cir. 1985) (cited in *Wilson Sporting Goods*, 904 F.2d at 683-84).

303. *See, e.g.*, *Depuy Spine, Inc. v. Medtronic Sofamar Danek, Inc.*, 567 F.3d 1314, 1322-23 (Fed. Cir. 2009); *see also* *Hilton Davis Chem. v. Warner-Jenkinson Co., Inc.*, 62 F.3d 1512, 1578 (Fed. Cir. 1995) (Nies, J., joined by Archer, C.J. dissenting).

304. *Wilson Sporting Goods*, 904 F.2d at 684.

305. *See id.* ("but we presume that the jury resolved underlying evidentiary conflicts in Wilson's favor").

306. *See supra* notes 201-210 and accompanying text.

doctrine of equivalents, is a question of fact.”³⁰⁷ Of course, it is well-established law that a literal infringement analysis is a two step process, involving, first, the construction of a claim, and, second, a comparison of the accused product or process to the claim as properly construed.³⁰⁸ Since the first of these steps, claim construction, has been defined by the Federal Circuit itself in *Markman* as an issue of law, and described by the Supreme Court as a “mongrel practice” including issues of law, the Federal Circuit’s above-quoted statement in *Hilton Davis* regarding infringement is not correct as far as literal infringement is concerned. In addition, given the hypothetical claim analysis in *Wilson Sporting Goods*, setting forth an initial legal determination of permissible claim scope to be followed by a further comparison of the claim and the accused product or process, the Federal Circuit’s above-quoted statement in *Hilton Davis* is also incorrect as far as infringement under the doctrine of equivalents is concerned.

The substantive law in general concerning the steps involved in determining infringement under the doctrine of equivalents has been muddled. Prior to the Federal Circuit decision in *Hilton Davis* and since, the steps involved in determining infringement under the doctrine of equivalents have been described repeatedly as involving, first, the construction of the claims, and, second, a comparison of the accused product or process to the construed claim to determine whether each element of the claim is present either literally or equivalently.³⁰⁹ However, the law has also recognized a number of specific legal limitations on the application of the doctrine of equivalents, including the prior art, dedication to the public, and

307. *Hilton Davis*, 62 F.3d at 1520 (emphasis added); see *supra* notes 205-206 and accompanying text.

308. See, e.g., *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-82 (Fed. Cir. 1996) (“A literal patent infringement analysis involves two steps: the proper construction of the asserted claim and a determination as to whether the accused method or product infringes the asserted claim as properly construed.”); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (“An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing.”).

309. See, e.g., *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (“It is well settled that an infringement analysis involves two steps: the claim scope is first determined, and then the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either literally or by a substantial equivalent.”); *Young Dental Mfg. Co., Inc. v. Q3 Special Products, Inc.*, 112 F.3d 1137, 1141 (Fed. Cir. 1997) (citations omitted) (“An infringement analysis involves two steps. First, the claim scope is determined without regard for the accused device. Second, the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either exactly or by a substantial equivalent.”).

prosecution history estoppel.³¹⁰ Many of these legal limitations are currently raised as defenses.³¹¹ The substantive law of infringement under the doctrine of equivalents is therefore, at best, inelegant in its organization of these principles as far as defining an orderly approach to the application of the doctrine of equivalents is concerned. In many instances, however, the statements of substantive law in this area are completely inconsistent. The Federal Circuit's characterization of infringement under the doctrine of equivalents as purely an issue of fact is possibly the most egregious of the inconsistent statements, and has led to confusion in the application of the doctrine.

The issue of whether the application of the doctrine of equivalents should be considered a pure issue of fact, as opposed to a mixed issue of fact and law, was one that expressly divided the Federal Circuit judges in addressing the Seventh Amendment issue in *Hilton Davis*, as previously discussed.³¹² It is an issue that goes to the heart of the doctrine of equivalents. Judge Nies clearly articulated the missing link in this substantive area of the law. In a dissent in *Hilton Davis*, in discussing the unclear distinctions set forth in Federal Circuit precedent between findings of equivalency and legal limitations on the doctrine of equivalents, Judge Nies proposed a clear unification of the legal questions involved in applying the doctrine of equivalents:

Properly understood, as previously explained, these questions are merely subparts under the larger question of the scope of protection to which the claim is entitled. We have, however, never articulated that under the doctrine the scope of equivalents is a separate legal question.

In sum, I conclude that a finding of infringement under the doctrine is a mixed question of law and fact.³¹³

The Federal Circuit majority's flawed analysis of the Seventh Amendment issue in *Hilton Davis* rests in part on the intermediate conclusion that infringement under the doctrine of equivalents is

310. See, e.g., Albert W. Preston, Jr. & Dianne B. Elderkin, *Malta v. Schulmerich: The Federal Circuit at a Crossroads in Its Search to Harmonize Substantive Patent Law with Jury Trial Procedure and Review*, 20 AIPLA Q.J. 49, 61 (1992) (In an article that predates *Hilton Davis*, the authors noted that the application of the doctrine of equivalence "has become much more 'legal,' and relatively less an exercise of fact finding.").

311. See, e.g., *Depuy Spine, Inc. v. Medtronic, Inc.*, 567 F.3d 1314, 1322-29 (Fed. Cir. 2009) (raising prior art as a defense of ensnarement).

312. See *supra* notes 210-219 and accompanying text.

313. *Hilton Davis*, 62 F.3d at 1579 (Nies, J., joined by Archer, C.J. dissenting) (citations omitted).

purely an issue of fact. This oversimplified and faulty intermediate conclusion stands between the current unclear statements of substantive law on the application of the doctrine of equivalents and the unifying clarification proposed by Judge Nies. In order to rectify the situation, it is time to revisit the Seventh Amendment analysis and reassess the flawed intermediate conclusion that infringement under the doctrine of equivalents is a pure issue of fact.

3. Claim Scope Under the Doctrine of Equivalents Versus Claim Construction

The Federal Circuit majority's flawed analysis of the Seventh Amendment issue in *Hilton Davis* has contributed greatly to a fundamental tension in the law between claim scope under the doctrine of equivalents and claim construction. This tension is another problem related to the unprincipled intermediate conclusion that infringement under the doctrine of equivalents is purely an issue of fact. It also relates back to the Federal Circuit's *Markman* decision, and the fact versus law dichotomy which the Federal Circuit articulated in its analysis of Seventh Amendment issues in that case, an analysis which the Federal Circuit has continued to apply despite the Supreme Court's very different approach to Seventh Amendment issues.

From a theoretical perspective, explanations in the case law as to how the doctrine of equivalents relates to claim construction have been problematic. In many instances these explanations have revolved around convoluted reasoning as to why the doctrine of equivalents does not affect claim scope.³¹⁴ In an attempt to rebut the dissenting views of Judge Nies in *Hilton Davis*, the Federal Circuit majority proclaimed that the level of protection under the doctrine of equivalents is the same as that provided by the doctrine of literal infringement:

This dissent errs, however, in arguing that the application of the doctrine of equivalents enlarges the claim scope. Instead the doctrine of equivalents provides the same protection to the substance of the claim scope provided by the doctrine of literal infringement. As explained in *Graver Tank*, when there are no substantial differences between the claimed and accused products or processes, "they are the same" in the eyes of the patent law.³¹⁵

This assessment of the doctrine of equivalents was not only rejected

314. See, e.g., *Hilton Davis*, 62 F.3d at 1528.

315. *Id.* (citations omitted).

in Judge Nies' dissent in *Hilton Davis*, it is not widely accepted by scholars and practitioners, who view the doctrine of equivalents as expanding the scope of protection,³¹⁶ rather than providing "the same protection to the substance of the claim scope provided by the doctrine of literal infringement."³¹⁷

It is true that many of these thorny explanations existed in the case law before the analysis of the Seventh Amendment issue in *Hilton Davis*. For instance, the Federal Circuit panel in *Wilson Sporting Goods* engaged in what might be described as sophistry in dealing with the relationship between claim construction and the doctrine of equivalents:

This court on occasion has characterized claims as being "expanded" or "broadened" under the doctrine of equivalents. . . . Precisely speaking, these characterizations are inaccurate.

To say that the doctrine of equivalents extends or enlarges *the claims* is a contradiction in terms. The claims-i.e., the scope of patent protection *as defined by* the claims-remain the same and application of the doctrine *expands the right to exclude* to "equivalents" of what is claimed.

The doctrine of equivalents, by definition, involves going beyond any permissible interpretation of the claim language; i.e., it involves determining whether the accused product is "equivalent" to what is described by the claim language.³¹⁸

While these problematic explanations may not all have had their genesis in the flawed Seventh Amendment analysis of the Federal Circuit majority in *Hilton Davis*, that analysis has made clarification of the substantive law in this area impossible by declaring that application of the doctrine of equivalents is purely factual. At the very least, as Judge Nies stated, the doctrine of equivalents presents legal issues related to "the scope of protection to which [a] claim is entitled."³¹⁹ In order to bring clarity to the substantive law addressing the relationship between claim construction and the doctrine of

316. See, e.g., Joshua D. Sarnoff, *Abolishing the Doctrine of Equivalents and Claiming the Future After Festo*, 19 Berkeley Tech. L. J. 1157, 1167 (2004) ("Whatever equivalency standard is applied, the modern doctrine necessarily expands patent scope . . ."); Allen N. Littman, *The Jury's Role in Determining Key Issues in Patent Cases: Markman, Hilton Davis and Beyond*, 37 IDEA 207, 233 (1997) ("It is suggested that the trial judge should determine whether the proposed equivalents are permitted. That, along with literal interpretation, would determine the scope of patent protection.").

317. *Hilton Davis*, 62 F.3d at 1528.

318. *Wilson Sporting Goods v. David Geoffrey Assocs.*, 904 F.2d 677, 684 (Fed. Cir. 1990), *overruled in part on other grounds*, *Cardinal Chem. Co. v. Morton Int'l, Inc.*, 508 U.S. 83 (1993).

319. *Hilton Davis*, 62 F.3d at 1579 (Nies, J., joined by Archer, C.J. dissenting).

equivalents, the majority's characterization in *Hilton Davis* of infringement under the doctrine of equivalents as purely a question of fact should be addressed and corrected.

In addition to theoretical problems concerning the relationship between the doctrine of equivalents and claim construction, the Federal Circuit's continuing reliance on its own fact versus law approach to Seventh Amendment issues has also lead to tension from a practical perspective. As one attorney has aptly pointed out: "[w]hy should the scope of a patent under the doctrine of equivalents be determined by a different entity than the one who interprets a patent generally?"³²⁰ I believe that this incompatible result has followed directly from the Federal Circuit's oversimplified "flip sides" approach to Seventh Amendment issues, which originated in the Federal Circuit's *Markman* decision.³²¹ This "flip sides" approach to claim construction and determinations of infringement preordains opposite Seventh Amendment results: claim construction is viewed as a pure issue of law for the court, while infringement, including the application of the doctrine of equivalents, is viewed as a pure issue of fact for the jury.

In effect, the Federal Circuit made a policy trade-off in its approach to Seventh Amendment analyses in *Markman*. The Federal Circuit *defined* claim construction as purely an issue of law for the judge in a move it believed would further its policy goals of certainty and uniformity. Of course, as a matter of historical fact, the Federal Circuit acknowledged in its *Markman* decision that patent infringement cases were tried to juries in 1791,³²² a circumstance that ensured that some aspect of a patent infringement suit must be preserved for jury determination under the Seventh Amendment.³²³ The Federal Circuit subsequently *defined* the doctrine of equivalents as an infringement issue and a pure question of fact in *Hilton Davis*. Under a rigorous Seventh Amendment analysis in keeping with Supreme Court precedent, there would be no automatic trade-off in reaching a determination as to whether a judge or jury decides issues of claim construction versus those under the doctrine of equivalents, and no need to define any of these tasks as pure issues of law or fact.

The tension inherent in having a judge determine issues of claim construction and a jury apply the doctrine of equivalents has caused a

320. Littman, *supra* note 316, at 225.

321. See *supra* notes 208-210 and accompanying text.

322. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 984 (Fed. Cir. 1995).

323. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 377 (1996).

further ripple effect stemming from the Federal Circuit's Seventh Amendment analyses. This ripple has invaded the substantive law of prosecution history estoppel.

III. PROSECUTION HISTORY ESTOPPEL

A. The Festo Decisions of the Federal Circuit and the Supreme Court

The relatively recent litigation between the Festo Corporation and Shoketsu Kinzoku Kogyo Kabushiki Company has produced a number of important decisions related to prosecution history estoppel.³²⁴ Prosecution history estoppel is a limitation on the doctrine of equivalents.³²⁵ Under this theory of estoppel, arguments or amendments made during the prosecution of a patent before the PTO may limit the range of equivalents that can be asserted under the doctrine of equivalents.³²⁶ The basis for the estoppel is that a patentee may not take one position before the PTO in order to gain allowance of a patent and then take a contrary position in an infringement action by attempting to reclaim through the doctrine of equivalents coverage relinquished during patent prosecution.³²⁷

The substantive law of prosecution history estoppel has recently undergone tremendous change in the course of the *Festo* litigation. The *Festo* litigation involved allegations of infringement under the doctrine of equivalents, and raised issues regarding the extent to which prosecution history estoppel limits or bars such allegations of infringement.³²⁸ The relevant claims of the patents involved in the litigation had been amended during prosecution, although the reasons for the particular amendments were not clear.³²⁹ Judgment in the case was originally entered for the plaintiff based on infringement under

324. See *supra* note 16.

325. See, e.g., *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 30 (1997).

326. See, e.g., *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc.*, 170 F.3d 1373, 1376-77 (Fed. Cir. 1999).

327. See, e.g., *id.* at 1376; *Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc.*, 103 F.3d 1571, 1577-78 (Fed. Cir. 1997).

328. See generally *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002) (litigating patents involved in the litigation related to magnetically coupled rodless cylinders).

329. See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 583-84 (Fed. Cir. 2000) (en banc) (claims of one patent amended during prosecution of the patent application, claims of other patent amended during a reexamination proceeding), *vacated*, 535 U.S. 722 (2002).

the doctrine of equivalents.³³⁰

On an initial appeal, the Federal Circuit rejected the defendant's argument that prosecution history estoppel precluded infringement under the doctrine of equivalents.³³¹ The Federal Circuit quoted its decision in *Hilton Davis*, applying the so-called "flexible bar" which had been well established in its cases: "[w]henever prosecution history estoppel is invoked as a limitation to infringement under the doctrine of equivalents, a close examination must be made as to, not only what was surrendered, but also the reason for such a surrender."³³² Under the flexible bar approach, even if prosecution history estoppel is triggered, once an examination is made of what was surrendered by the amended language and the reasons for the amendment, there may be a range of equivalents that is still available under the doctrine of equivalents.³³³ In fact, under existing precedent at the time, the limiting effect of prosecution history estoppel on the doctrine of equivalents in any particular case could fall "within a spectrum ranging from great to small to zero."³³⁴

A little over a year after the original appellate decision was issued in *Festo*, the Supreme Court issued its decision in *Warner-Jenkinson*, and granted certiorari in the *Festo* case, vacating the original appellate *Festo* decision and remanding the case for further consideration.³³⁵ In its *Warner-Jenkinson* decision, the Supreme Court affirmed the continuing validity of prosecution history estoppel as a limit on the doctrine of equivalents.³³⁶ The Court also rejected an argument that the reason for making an amendment during patent prosecution should be considered "irrelevant" in determining whether an estoppel arises,³³⁷ stating that its past precedent "consistently applied prosecution history estoppel only where claims have been amended for a limited set of reasons."³³⁸ The Court noted that the

330. *Festo*, 234 F.3d at 585. Judgment was entered following the grant of a partial summary judgment of infringement of one patent under the doctrine of equivalents and a jury finding of infringement of the other patent under the doctrine of equivalents.

331. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 72 F.3d 857, 863-64 (Fed. Cir. 1995), *vacated* 520 U.S. 1111 (1997).

332. *Id.* at 864 (quoting *Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc.*, 62 F.3d 1512, 1525 (Fed. Cir. 1995) (internal quotations and citations omitted)).

333. *Hughes Aircraft Co. v. United States*, 717 F.2d 1351, 1362-63 (Fed. Cir. 1983); *see also* *LaBounty Mfg., Inc. v. United States Int'l Trade Comm'n*, 867 F.2d 1572, 1576 (Fed. Cir. 1989); *Dixie USA, Inc. v. Infab Corp.*, 927 F.2d 584, 588 (Fed. Cir. 1991).

334. *Hughes*, 717 F.2d at 1363.

335. *Shoketsu Kinzoku Kogyo Kabushiki Co. v. Festo Corp.*, 520 U.S. 1111 (1997).

336. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29-30 (1997).

337. *Id.*

338. *Id.* at 32.

reasons typically relate to amendments made to avoid the prior art.³³⁹ The Court in *Warner-Jenkinson* introduced a new presumption to deal with situations in which no reason for an amendment is established in the record.³⁴⁰ In such cases, the Court established a rebuttable presumption that there is a “substantial reason related to patentability” for the amendment, and stated that prosecution history estoppel would bar the application of the doctrine of equivalents.³⁴¹ The Court placed the burden of establishing the reason for an amendment on the patent holder.³⁴²

On remand, the *Festo* case was eventually taken up by the Federal Circuit en banc.³⁴³ In a fractured and fractious decision, the Federal Circuit radically changed the rules for prosecution history estoppel in a manner that severely limited the availability of the doctrine of equivalents. Among its more modest holdings, the Federal Circuit majority held that prosecution history estoppel would be triggered by any narrowing amendment made for any reason relating to the statutory requirements for obtaining a patent, and was not limited to amendments made to overcome prior art rejections.³⁴⁴ In its most drastic holding, the Federal Circuit majority overruled seventeen years of its own precedent by replacing the “flexible bar” approach, which it deemed “unworkable,” with a “complete bar.”³⁴⁵ The Federal Circuit held that if an estoppel arises as the result of an amendment to a claim, there can be no application of the doctrine of equivalents to the amended claim element.³⁴⁶ This latter “complete bar” rule, combined with the wide range of reasons that the Federal Circuit announced would trigger prosecution history estoppel, severely curtailed the availability of the doctrine of equivalents. However, the Federal Circuit majority deemed that it would advance the goals of certainty and predictability in providing notice to the public regarding the scope of protection provided by a patent.³⁴⁷

The holding was vehemently denounced by four Federal Circuit

339. *Id.* at 31.

340. *Id.* at 33.

341. *Id.* at 33-34.

342. *Id.* at 33.

343. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, (Fed. Cir. 2000) (en banc), *vacated*, 535 U.S. 722 (2002). A Federal Circuit panel had earlier taken up the case on remand and issued a decision affirming in part, vacating in part and remanding (*Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 172 F.3d 1361 (Fed. Cir. 1999), *vacated*, 187 F.3d 1381 (Fed. Cir. 1999)) (en banc).

344. *Festo*, 234 F. 3d at 563, 566-68.

345. *Id.* at 564, 569-78.

346. *Id.*

347. *Id.* at 575-78.

judges in multiple dissents, who variously saw the complete bar approach as contradicting Supreme Court precedent, lacking sufficient justification for overruling Federal Circuit precedent, and adversely impacting inventors and the process of obtaining patents.³⁴⁸ The Supreme Court again granted certiorari in the *Festo* case to review the controversial en banc decision of the Federal Circuit.³⁴⁹

In a unanimous decision, the Supreme Court rejected the Federal Circuit's complete bar for limiting the doctrine of equivalents under prosecution history estoppel.³⁵⁰ Focusing on the limitations inherent in words, and the difficulty of precisely describing things using words, the Court emphasized the importance of not limiting the reach of a patent to its literal terms in order to achieve "appropriate incentives for innovation."³⁵¹ The Court stressed that the doctrine of equivalents achieved this result, a goal that the Court had repeatedly held to be worth the cost of creating some uncertainty in patent scope in opinions spanning from 1854 through 1997.³⁵² The Supreme Court viewed a complete bar in applying prosecution history estoppel as inconsistent with this fundamental goal of the doctrine of equivalents.³⁵³ Therefore, the Court stated that while a narrowing claim amendment may be viewed as a concession by the inventor that the patent rights do not extend as far as the original claim, the amended language may still be "an imperfect fit" for the invention.³⁵⁴ As a result, the Court identified three categories in which a narrowing claim amendment should not be equated with the surrender of a particular equivalent. First, if the equivalent was "unforeseeable at the time of the amendment."³⁵⁵ Second, if the particular equivalent bears "no more than a tangential relation" to the rationale for adding the amendment.³⁵⁶ Third, if for "some other reason" a patentee could not reasonably have been expected to describe the particular

348. *Id.* at 598-619 (Michel, J., dissenting) (discussing both Supreme Court precedent and Federal Circuit precedent that had endorsed a flexible bar approach and pointing out that the Federal Circuit was not free to change the flexible bar approach because it would contradict Supreme Court precedent); *id.* at 619-20 (Rader, J., dissenting) (discussing the detrimental impact of the complete bar in the context of after-arising technology); *id.* at 620-29 (Linn, J., dissenting) (focusing on the lack of justification for the drastic change in the law brought about by the complete bar approach and the adverse consequences to inventors and the process of patent prosecution); *id.* at 630-42 (Newman, J., dissenting).

349. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 533 U.S. 915 (2001).

350. *Id.* at 722, 724, 737.

351. *Id.* at 731-32.

352. *Id.* at 732-33.

353. *Id.* at 737-38.

354. *Id.* at 738.

355. *Id.* at 738, 740.

356. *Id.* at 740.

equivalent.³⁵⁷

In rejecting the complete bar, the Supreme Court did not reestablish the former flexible bar. Rather, it introduced another rebuttable presumption to be applied with the rebuttable presumption introduced in *Warner-Jenkinson*. Under this second rebuttable presumption, a patentee who has made a narrowing amendment in patent prosecution is presumed to have surrendered any equivalent falling between the original claim and the amended claim.³⁵⁸ The patentee bears the burden of rebutting the presumption by proving that a particular equivalent was not surrendered because it fell within one of the three categories enumerated above.³⁵⁹

After establishing a second rebuttable presumption, the Supreme Court remanded the *Festo* case to the Federal Circuit for further consideration in light of its decision.³⁶⁰ The Federal Circuit responded by adding additional complexities to the substantive law of prosecution history estoppel, which are described hereinafter.

B. The Federal Circuit's Push to Change the Rules for Prosecution History Estoppel to Minimize the Availability of the Doctrine of Equivalents

There is no doubt that the Federal Circuit majority attempted to drastically reduce the availability of the doctrine of equivalents in its first en banc decision in *Festo*. By adopting a complete bar approach to the application of prosecution history estoppel in any instance in which a narrowing claim amendment was made to satisfy the statutory requirements for issuance of a patent, the Federal Circuit attempted to change the substantive law to ensure that the doctrine of equivalents would be unavailable per se in many instances.

While the Federal Circuit's push to reduce the availability of prosecution history estoppel is often analyzed in terms of the court's general desire to provide more certainty and predictability in the law of claim scope, I believe the en banc *Festo* decision was also heavily motivated by its recent Seventh Amendment decisions. In applying a simplified fact versus law analysis to Seventh Amendment issues in its *Markman* and *Hilton Davis* decisions, the Federal Circuit reached opposite results for claim construction and the doctrine of equivalents, the logical conclusion of its "flip sides" approach. The judge is

357. *Id.* at 740-41.

358. *Id.*

359. *Id.*

360. *Id.* at 742.

entrusted with claim construction but the jury is handed the application of the doctrine of equivalents. The tension is enormous. The jury in many cases holds the power to effectively override a district court's careful construction of patent claims by finding infringement under the doctrine of equivalents.³⁶¹

In considering the likelihood that Seventh Amendment issues played a major role in the Federal Circuit's push to minimize the availability of the doctrine of equivalents in its first en banc decision in *Festo*, the timing of the decisions is significant. The Federal Circuit panel decision in the initial *Festo* appeal was issued within a few months after the issuance of the Federal Circuit decision in *Hilton Davis*.³⁶² At that time, the panel applied prosecution history estoppel as a flexible bar to the application of the doctrine of equivalents, and affirmed the lower court judgment of infringement.³⁶³ On the other hand, by the time the Federal Circuit's first en banc decision on the merits in the *Festo* case was issued, the Federal Circuit's *Markman* decision assigning claim construction to the judge was approximately five and a half years old, and the Seventh Amendment outcome in the case had been affirmed by the Supreme Court.³⁶⁴ In addition, the Federal Circuit's *Hilton Davis* decision assigning application of the doctrine of equivalents to the jury was over four years old, and the outcome on the Seventh Amendment issue in the case had been left unreviewed but undisturbed by the Supreme Court.³⁶⁵ The tension created by entrusting claim construction to the judge while delegating the application of the doctrine of equivalents to the jury had been

361. John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 Stan. L. Rev. 955, 958 (2007) (noting that juries can undo the work of claim construction by applying the doctrine of equivalents).

362. The Federal Circuit's panel decision in the initial *Festo* appeal was issued on December 14, 1995. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 72 F.3d 857 (Fed. Cir. 1995). This was just over four months after the issuance of the Federal Circuit decision in *Hilton Davis*. The latter was issued on August 8, 1995. *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. 1995).

363. See *supra* notes 331-332 and accompanying text.

364. The Federal Circuit's first en banc decision on the merits in the *Festo* case was issued on November 29, 2000. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc). This was over five years and seven months after the Federal Circuit's *Markman* decision was issued. The latter was issued on April 5, 1995, and affirmed on April 23, 1996. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

365. The Federal Circuit's *Hilton Davis* decision assigning application of the doctrine of equivalents to the jury was issued on August 8, 1995 (*Hilton Davis*, 62 F.3d 1512 (Fed. Cir. 1995)), over four years earlier than the Federal Circuit's first en banc decision on the merits in the *Festo* case, which was issued on November 29, 2000 (*Festo Corp.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc)). The Supreme Court left the Seventh Amendment outcome in the Federal Circuit's *Hilton Davis* decision undisturbed in a decision issued on March 3, 1997. *Warner-Jenkinson*, 520 U.S. 17 (1997).

building. Moreover, this tension provided a new and more immediate pressure to limit the doctrine of equivalents. By contrast, the concern that the doctrine of equivalents renders the scope of patent protection less certain is not new, and has been aired in the case law since 1854, as pointed out by the Supreme Court in *Festo*.³⁶⁶

While the Supreme Court rejected the Federal Circuit's attempt to establish a complete bar in the law of prosecution history estoppel, the resulting substantive law has become more and more complex as compared to the previous flexible bar approach.

*C. Confusion and Complexity in the Substantive Law of
Prosecution History Estoppel as a Ripple Effect of Seventh
Amendment Decisions*

“Would you tell me, please, which way I ought to go from here?”

“That depends a good deal on where you want to get to,” said the Cat.

— Alice's Adventures in Wonderland, Lewis Carroll, Chapter 6

It is clear that the Federal Circuit majority would like to take the path of restricting the doctrine of equivalents. While the Federal Circuit's attempt to do just that by applying prosecution history estoppel as a complete bar was rejected by the Supreme Court, the Supreme Court did not reinstate the flexible bar. Rather, it replaced the complete bar with a rebuttable presumption of a complete bar.³⁶⁷ The Supreme Court set out three general categories to be examined in determining whether the patentee had met its burden of rebutting the presumption of a complete bar.³⁶⁸ The Court then remanded the *Festo* case to the Federal Circuit to determine whether Festo could rebut the presumption that the narrowing amendments made during patent prosecution barred all equivalents falling between the original claims and the amended claims.³⁶⁹

On remand, the Federal Circuit introduced additional considerations. First, the Federal Circuit held that the question of whether the presumption of surrender of an equivalent had been rebutted was a question of law for the court, again briefly analyzing

366. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. at 732-33 (2002).

367. *See supra* note 358 and accompanying text.

368. *See supra* notes 355-357 and accompanying text.

369. *Festo*, 535 U.S. at 741-42.

this Seventh Amendment issue by focusing on a law versus fact distinction.³⁷⁰ The Federal Circuit acknowledged that there may be underlying questions of fact in determining if a rebuttal is established, but briefly stated that it was proper for the court to decide factual issue that underlie a legal question.³⁷¹

Next the Federal Circuit set forth “general guidance” on the application of the three categories available to support a rebuttal.³⁷² With respect to the first category, establishing that the alleged equivalent was “unforeseeable at the time of the amendment,” the Federal Circuit stated that this involves an objective inquiry from the perspective of one of ordinary skill in the art gauged at the time of the amendment.³⁷³ The court also stated that later-developed technology or technology not known in the relevant art would “usually” not be considered foreseeable. On the other hand, the court stated that old technology, while not necessarily foreseeable, “would more likely” be foreseeable.³⁷⁴ With respect to the second category, that the underlying reason for the amendment bears “no more than a tangential relation” to the equivalent in question, the court stated that it was hard to “anticipate the instances of mere tangentialness that may arise.”³⁷⁵ However, the court stated that an amendment made to avoid prior art encompassing the equivalent would not be tangential.³⁷⁶ The court also stated that the inquiry should focus on the “objectively apparent reason” for an amendment based upon the prosecution history.³⁷⁷ Finally, with respect to the third category, namely that the patentee establish “some other reason” why it was not reasonable to have described the particular equivalent, the court stated that the category is “vague” but “narrow,” and may be satisfied based upon “the shortcomings of language.”³⁷⁸

370. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1368-69 (Fed. Cir. 2003) (en banc).

371. *Id.* at 1368-69, and 1368 n.3. It is interesting to note that in a footnote the Federal Circuit attempted to retreat from its prior *Markman* statements that claim construction is purely an issue of law. *Id.* at 1368 n.3. The court cited its *Markman* decision as indirect support for the proposition that a court may properly decide issues of fact underlying issues of law. *Id.* However, it is ironic that the discussion referenced in *Markman* as indirect support actually states that while a court may consider extrinsic evidence in its discretion in the course of claim construction, in doing so “the court is *not* crediting certain evidence over other evidence or making factual evidentiary findings.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 981 (Fed. Cir. 1995) (emphasis in original).

372. *Festo*, 344 F.3d at 1369-70.

373. *Id.* at 1369.

374. *Id.*

375. *Id.*

376. *Id.*

377. *Id.* at 1369-70.

378. *Id.* at 1370.

As a result of the *Festo* decisions, the law of prosecution history estoppel has become enormously complex and confusing, to say the least. The flexible bar approach that pre-dated the Federal Circuit's en banc decision in *Festo* was far simpler and more elegant in theory than the current system of rebuttable presumptions, categories of rebuttal and associated factors. Moreover, the complexity of the current law of prosecution history estoppel has in turn caused instability. As Judge Rader noted in discussing recent changes in this area of the law, the Federal Circuit's jurisprudence has been moving at "lightning pace," which "can engender uncertainty about the consequences of each new rule."³⁷⁹ As discussed, I believe the current complexities in the substantive law of prosecution history estoppel can be traced back to the flawed analyses in the Federal Circuit's *Markman* and *Hilton Davis* cases. In applying a fact versus law approach to Seventh Amendment issues, an approach not employed by the Supreme Court in addressing such issues, the Federal Circuit set a wave in motion that has caused numerous ripples. The Federal Circuit's overly simplified "flip sides" approach preordained opposite Seventh Amendment results for claim construction and the doctrine of equivalents. These opposite results in and of themselves have created enormous tension. This tension in turn has generated pressure to remedy the situation by manipulating the substantive law of prosecution history estoppel to minimize the availability of the doctrine of equivalents. I view this as a Seventh Amendment ripple which has led to enormous complexity and confusion in the substantive law of prosecution history estoppel.

The tension that I believe has led to this final ripple effect would only be removed if the Seventh Amendment outcome in the Federal Circuit's *Hilton Davis* decision were reversed, so that judges decide issues related to the application of the doctrine of equivalents. As Judge Plager noted in a concurring opinion in the Federal Circuit's first en banc *Festo* decision, the complete bar was "a second-best solution to an unsatisfactory situation."³⁸⁰ The better solution he identified was to declare the doctrine of equivalents to be rooted in equity and therefore assign questions of its applicability to judges.³⁸¹

I believe the best path towards attempting to resolve the tension leading to this final ripple effect is to revisit the underlying flawed

379. *Id.* at 1376 (Rader, J., concurring).

380. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 593 (Fed. Cir. 2000).

381. *Id.*

Seventh Amendment analyses. It is beyond the scope of this paper to determine the result of a principled Seventh Amendment analysis of the issue raised in *Hilton Davis*, which would entail an extensive review of precedent under the historical approach. The purpose of this article is to point out the flaws in the Seventh Amendment analyses contained in the Federal Circuit's *Markman* and *Hilton Davis* decisions, and to point out the problems that have been created in substantive patent law as a result. The tension creating the final ripple may or may not be resolved through a proper analysis of the Seventh Amendment issues. The other problem areas in substantive patent law discussed herein would be improved as a result. On balance, I believe the flaws in the Federal Circuit's Seventh Amendment analyses, together with an appreciation of all of the resulting problems that have arisen in substantive patent law, more than justify reconsideration of the underlying Seventh Amendment issue in *Hilton Davis*, which the Supreme Court left undecided, as well as correction of two of the Federal Circuit's primary errors in its intermediate conclusions, namely that claim construction is purely an issue of law and that application of the doctrine of equivalents involves purely an issue of fact.

CONCLUSION

Seventh Amendment issues in patent cases should be analyzed in a principled manner, consistent with Supreme Court precedent. While the ultimate decisions reached on such issues are important, the analyses employed in reaching the decisions are also critically important. Oversimplified statements and faulty intermediate conclusions set forth in the course of flawed Seventh Amendment analyses, often employed to reach results perceived to foster certainty and uniformity, can in turn have independent, dramatic and adverse effects on the development of substantive patent law.

In the area of claim scope, flawed Seventh Amendment analyses by the Federal Circuit in its majority opinions in *Markman* and *Hilton Davis*, based principally on a fact versus law approach, have resulted in confusion, tension and conflict in a wide array of substantive law issues related to claim construction, the doctrine of equivalents and prosecution history estoppel. The Supreme Court has added to the problems by failing to expressly point out the errors in the Federal Circuit's flawed analyses. In its *Markman* decision, the Supreme Court performed an in-depth Seventh Amendment analysis of the issue of whether a judge or jury should construe claims, which the Federal Circuit majority had failed to do. Moreover, the Supreme

Court expressly declined to apply a fact versus law approach to the Seventh Amendment issue. However, in affirming the outcome reached by the Federal Circuit, the Supreme Court failed to expressly point out the error in the approach taken by the Federal Circuit. As a result, the Federal Circuit has relied upon its own prior faulty analysis in *Markman* over and over again. In its *Warner-Jenkinson* decision, the Supreme Court fostered more confusion by not only failing to decide the Seventh Amendment issue in the case, but by voicing approval in dicta of the Federal Circuit's decision on the Seventh Amendment issue while expressly reserving judgment.

It is time to clean up the Federal Circuit's flawed analyses of Seventh Amendment issues in patent cases. The stakes are high. The issues are important. The ripple effect is huge. The Supreme Court should stop showing such extreme deference to the Federal Circuit in an area of constitutional importance. The Federal Circuit's oversimplified statements and faulty intermediate conclusions characterizing claim construction as purely an issue of law and application of the doctrine of equivalents as purely an issue of fact should be corrected, either by the Federal Circuit itself or by the Supreme Court. The underlying Seventh Amendment issue in *Hilton Davis*, which the Supreme Court left unreviewed, should be reconsidered and analyzed in a manner consistent with Supreme Court Seventh Amendment precedent. Correcting errors in the treatment of Seventh Amendment issues in patent cases will go a long way towards rectifying problem areas in the substantive law of claim scope.